

EXHIBIT 5

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In accordance with a protective order, the enclosure(s) shall be treated as confidential and shall not be shown to any person other than those persons designated in paragraph 8.2 of the paragraph order.

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Avanti Financial Group, Inc.
d/b/a Avanti Bank & Trust

June 22, 2020

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1. Acronyms and Abbreviations

ACH	Automated Clearing House
AML	Anti-Money Laundering
API	Application Programming Interface
AUC	Assets Under Custody
BMA	Bermuda Monetary Authority
BSA	Bank Secrecy Act
BTC	Bitcoin
CAPM	Capital Asset Pricing Model
CBDC	Central Bank Digital Currency
CFT	Combatting the Financing of Terrorism
CFTC	Commodity Futures Trading Commission
Chapter 19	Wyoming Digital Asset Custody Rules: Ch. 19, Wyo. Banking Div. R. (2019)
Chapter 20	Wyoming SPDI Rules: Ch. 20, Wyo. Banking Div. R. (2019)
DvP	Delivery-versus-Payment
EMH	Efficient Markets Hypothesis
ESOP	Employee Stock Option Plan
FDIC	Federal Deposit Insurance Corporation
FinCEN	Financial Crimes Enforcement Network
FINMA	Swiss Financial Market Supervisory Authority
Finra	Financial Industry Regulatory Authority
G-SIB	Global Systemically Important Bank
HQLA	High-Quality Liquid Assets
KYC	Know Your Customer
MERS	Mortgage Electronic Registration Systems
NAIC	National Association of Insurance Commissioners
NRSRO	Nationally Recognized Statistical Ratings Organization
NYDFS	New York State Department of Financial Services
OCC	Office of the Comptroller of the Currency
OFAC	Office of Foreign Assets Control
OTC	Over the Counter
PTIE	Pass-Through Investment Entity
RvP	Receipt-versus-Payment
SEC	Securities Exchange Commission
SEN	[REDACTED] Exchange Network
SPDI	Special Purpose Depository Institution
SPV	Special-Purpose Vehicle
SWIFT	Society for Worldwide Interbank Financial Telecommunication
UCC	Uniform Commercial Code
UETA	Uniform Electronic Transactions Act
USD	U.S. Dollar
UTXO	Unspent Transaction Output

2. Executive Summary

Avanti Financial Group, Inc. (“Avanti” or “Bank”) is a Wyoming corporation formed to apply for a bank charter under Wyoming’s special purpose depository institution (“SPDI”) law,¹ as well as to apply for a Master Account² at the Federal Reserve Bank of Kansas City.³ We also plan to apply to become a Federal Reserve member bank⁴ at a future date. Avanti intends to operate under the name “Avanti Bank & Trust.”

If granted an SPDI charter, Avanti plans to be a compliant bridge to the U.S. dollar payments system for digital assets and a custodian of digital assets that can meet the strictest level of institutional custody standards. Avanti is also developing a U.S. dollar electronic “transferable record”⁵ that will provide holders with rights similar to those available to a holder of a cashier’s check or other negotiable instrument. These records will be for use in transactions on a delivery-versus-payment basis, which allows for enhanced efficiencies in the traditional and digital asset-related business lines. As described below, Avanti is building a robust program to ensure its compliance with all applicable laws and regulations, including federal “know your customer,” anti-money laundering and related laws and regulations. Avanti would also be subject to Wyoming’s SPDI and digital asset laws and regulations.⁶

In its first three years of operations, Avanti plans to offer deposit accounts as well as wires, ACH transfers, cashier’s checks, and escrow and custody services (via its trust powers⁷) for various types of assets, including digital assets. In accordance with the SPDI law, Avanti plans to issue a portion of the deposits as electronic “transferable records” in compliance with existing electronic records laws, which Avanti’s customers can use as a negotiable instrument similar to a cashier’s check.

As a state-chartered bank that is prohibited by Wyoming law from making loans with customer fiat deposits, Avanti will be required to hold reserves equal to 100% of its deposit liabilities.⁸ Accordingly, Avanti’s business plan and revenue model are primarily fee-based. Our projections show Avanti can be profitable by year two.

Avanti’s target customers are institutional investors and high-net-worth individuals. On the fiat side of the business, Avanti anticipates that its initial customers will be institutions looking to find a regulated means to acquire digital assets, as well as those that want the security of deposits fully-backed by risk-free assets. On the digital asset side of the business, Avanti anticipates that its initial customers will be mostly institutional traders and funds that already hold digital assets, and we believe our customer base will grow to include general businesses over time as well.

Avanti believes that the primary attributes that differentiate it and allow it to build a simple, profitable banking business are:

- (1) **Avanti’s ability to provide both digital asset custody and U.S. dollar payment settlement services simultaneously.** This service does not exist in the U.S. today (although it does exist in other countries, such

¹ Wyo. Stat. §§ 13-12-101 - 13-12-126 (2019).

² See Board of Governors of the Federal Reserve System, Reserve Maintenance Manual, <https://www.federalreserve.gov/monetarypolicy/reserve-maintenance-manual-account-structure.htm>.

³ Wyoming falls within the 10th Federal Reserve District, which is served by the Federal Reserve Bank of Kansas City. *See, e.g.*, Federal Reserve Bank of Kansas City, Federal Reserve Bank of Kansas City Information, <https://www.kansascityfed.org/aboutus/kcfdinformation>.

⁴ See Board of Governors of the Federal Reserve System, Application to the Board of Governors of the Federal Reserve System for Membership in the Federal Reserve System—FR 2083, https://www.federalreserve.gov/reportforms/forms/FR_2083--A--B--C20200115_f.pdf; *see also* Wyo. Stat. § 13-12-103(b)(vi) (2019).

⁵ The Uniform Electronic Transactions Act defines “transferable record” as “an electronic record that: (1) would be a note under [Article 3 of the Uniform Commercial Code]...if the electronic record were in writing; and (2) the issuer of the electronic record expressly has agreed is a transferable record.” Uniform Electronic Transactions Act, Wyo. Stat. § 40-21-116(a) (2019) (“UETA”).

⁶ Wyo. Stat. § 13-12-101 - 13-12-126 (2019); *see also* Ch. 19, Wyo. Banking Div. R. (2019) (“Chapter 19”).

⁷ Wyo. Stat. § 13-12-103(b)(vii) (2019).

⁸ Wyo. Stat. § 13-12-103(c) (2019).

as Switzerland⁹). Accordingly, the U.S. dollar payment and digital asset legs of a transaction in the market today must be settled, in sequence, at different times rather than simultaneously. This mismatch in settlement timing gives rise to counterparty credit risk, which is a significant problem faced by users of digital assets. By offering simultaneous settlement of both legs of transactions, customers of Avanti could eliminate this counterparty credit risk and reduce the cost of friction caused by latency in settling the U.S. dollar payment leg. Avanti's proposed escrow and Avit products would each solve these problems for Avanti's customers, in different ways.

- (2) **Avanti's position as the first digital asset custodian built to meet the highest institutional fiduciary standards**, including those of the largest institutional investors such as pension funds, mutual funds, university endowments, foundations, and sovereign wealth funds. Avanti believes that among its core client base would be large traditional institutional investors that insist on strict fiduciary requirements¹⁰ when they hire mission-critical service providers. No such digital asset custodians in the U.S. today are banks, and no such companies have direct access to the Federal Reserve, which is something that major institutional investors demand of their securities custodians.¹¹
- (3) **Avanti's business would allow customers and other market participants to benefit from the commercial laws of Wyoming, which is the only state in the U.S. to address the legal status of digital asset transactions under its Uniform Commercial Code.**¹² Accordingly, Avanti's customers would have legal clarity regarding the rights and obligations of parties in transactions involving digital assets generally, while in other U.S. states such legal clarity applies only to those transactions involving an intermediary (such as a securities intermediary)—and only an estimated 20-25% of digital assets are currently held by intermediaries.¹³ Legal uncertainty regarding digital asset transactions in states other than Wyoming is so considerable that some institutional providers explicitly warn their customers that such transactions may not be enforceable under current law.¹⁴ Lack of legal clarity is a primary reason why the largest investment managers have been reluctant to invest in digital assets of all types (including digital securities, not just virtual currencies).
- (4) **The treatment of customer assets would be clear in the event of Avanti's insolvency.** Not only is Avanti required to submit a resolution plan within six months of commencing operations, as required by Wyoming law,¹⁵ but also:

⁹ In 2019, the Swiss financial market supervisory authority ("FINMA") awarded bank licenses to two start-ups and authorized them to accept cryptocurrencies as bank deposits (SEBA and Sygnum). SEBA has now partnered with Swiss private bank Julius Baer. Avi, *Switzerland Approves Bitcoin Banks—But with Strict Conditions Attached*, BITCOIN.COM, Jun. 4, 2020, <https://news.bitcoin.com/switzerland-approves-bitcoin-banks-but-with-strict-conditions-attached/>.

¹⁰ Many plans of such investors are subject to ERISA (Employee Retirement Income Security Act), which imposes the strictest fiduciary standards on service providers to ERISA plans as well as personal liability for ERISA plan fiduciaries.

¹¹ In other words, the largest custodians of securities (such as State Street, Bank of New York Mellon, Citigroup and Bank of America) are banks that have direct access to the Federal Reserve. Note that State Street's primary operating subsidiary, State Street Bank and Trust, is a Massachusetts trust company (permitted to accept deposits, unlike most trust companies) and bank that is a member of the Federal Reserve System. *See, e.g.,* State St. Bank & Tr. Co., Investment Company Act Release No. 33,534 (Jun. 27, 2019), <https://www.sec.gov/litigation/admin/2019/ic-33534.pdf>.

¹² *See* Wyo. Stat. § 34-29-101 *et. seq.* (2019), <https://wyoleg.gov/Legislation/2019/SF0125>.

¹³ The commercial laws of all 50 U.S. states currently provide legal clarity for transactions involving intermediated digital asset transactions under UCC Article 8. However, only an estimated 20-25% of digital assets are currently held by intermediaries. *See* Nic Carter, *A Crypto Banking Reality Check*, BANKLESS, <https://bankless.substack.com/p/a-crypto-banking-reality-check> (last visited Jun. 4, 2020). Wyoming is the only U.S. state whose laws address the 75-80% of digital assets held in self-custody.

¹⁴ For example, the sponsor of USDC (a stablecoin issued by a U.S. issuer and marketed to institutional investors) contains the following warning: *"The regulatory status of USDC and blockchain technology is unclear or unsettled in many jurisdictions. It is difficult to predict how or whether regulatory agencies may apply existing regulation with respect to USDC, blockchain technology and its applications. Accordingly, it is not possible to determine whether a USDC transfer would be recognized under applicable law by a court or regulator at the U.S. state, U.S. federal, or international level."* *See, e.g.,* Circle USDC User Agreement (Dec. 9, 2019), <https://support.usdc.circle.com/hc/en-us/articles/360001233386-Circle-USDC-User-Agreement>.

¹⁵ *See* Ch. 20, Wyo. Banking Div. R. § 4 (2019) ("Chapter 20").

- (a) customer funds on deposit at Avanti are required to be 100% invested in risk-free assets,¹⁶ which means Avanti's assets are capable of being resolved quickly, which should consequently accelerate the resolution of its fiat deposit liabilities,¹⁷ and
- (b) all (or nearly all) of the digital assets held by Avanti will be held in a bailment,¹⁸ where the applicable customer will entrust control of the relevant digital asset(s) to Avanti, but retain ownership, in the form of title, of that property. Avanti will not be permitted to make loans and thus should not have a claim on, or security interest in, the custodied digital assets; consequently, such assets will be returned to the applicable customer outside of the bank's insolvency.

In contrast, the insolvency of a digital asset custodian other than a Wyoming-chartered SPDI is likely to be an expensive and lengthy endeavor—not only because commercial law is unclear, but also because, to our knowledge, none of the custodians operating in the digital asset space are required to have a resolution plan. Because Avanti's customer agreements would be governed by Wyoming law, Avanti would have an early mover advantage as one of the first custodians of digital assets in the U.S. able to provide legal clarity with respect to digital assets in the event of its insolvency. This makes its resolution process more efficient and predictable than that of its competitors in the digital asset custody business, many of whom are non-depository trust companies that are subject to the U.S. Bankruptcy Code. By contrast, banks are unable to file a federal bankruptcy petition—they must instead look to their chartering authority and/or the FDIC.

In every respect, Avanti is designed to meet the strictest standards of mission-critical infrastructure for institutional investors.

Avanti's focus is "security and compliance first," and the composition of our team reflects this dual-priority philosophy.

Avanti has already completed the hiring of its senior management team; all five executive officers are full-time employees of Avanti and all five have prior experience at regulated financial institutions. These individuals bring decades of experience and expertise, individually and in the aggregate, to the team. The Avanti management team also includes experienced bank operations professionals, BSA compliance professionals, and digital asset professionals.

Table 1: Broad Regulatory Experience of Avanti's Executive Team

Executive Officer	Prior Experience at Firms Regulated By:
Chief Executive Officer	Securities Exchange Commission ("SEC")*, Financial Industry Regulatory Authority ("Finra")*, New York State Department of Financial Services ("NYDFS")*, Texas Department of Insurance / National Association of Insurance Commissioners ("NAIC")*, Bermuda Monetary Authority ("BMA")*, Swiss Financial Market Supervisory Authority ("FINMA")
Chief Banking Officer / Chief Financial Officer	FDIC*, Officer of the Comptroller of the Currency ("OCC")*, Federal Reserve Bank*, Financial Crimes Enforcement Network ("FinCEN")*, Wyoming Division of Banking*
Chief Compliance Officer / Chief Legal Officer	SEC*, Finra, FinCEN, Commodity Futures Trading Commission ("CFTC")*, NYDFS, New York Department of Insurance / NAIC
Chief Operating Officer	SEC, Finra, NYDFS, FinCEN*, state lending licenses*
Chief Technology Officer	CFTC

* = officer-level role

¹⁶ See Chapter 19, *supra* note 5, § 4(l).

¹⁷ See Ch. 5, Wyo. Banking Div. R. (2019) (providing that custodial and fiduciary assets are classified outside of the bankruptcy estate of an insolvent bank, and establishing that the FDIC's procedures would be followed).

¹⁸ *Id* at § 2(a)(i). See also *bailment*, Black's Law Dictionary, https://blacks_law.enacademic.com/2730/bailment (last visited Jun. 4, 2020).

All five of Avanti's executives have significant expertise in regulated financial services, and four of the five also have deep experience in digital assets. Our chief banking officer has approximately 20 years of banking experience, most of which has been at the executive level in various Wyoming community banks. Each of Avanti's BSA officer and Avanti's senior system administrator is highly experienced and developed their expertise at Wyoming community banks. Another adviser to the Avanti team is a commissioned federal bank examiner and recently retired Manager of the Mergers and Acquisitions section of the Supervision and Regulation Division of the Board of Governors of the Federal Reserve System, who has over 30 years of bank regulatory experience. Finally, Avanti's Board of Directors includes two directors who have prior experience as directors of three banks.

Avanti's engineering team includes two lead blockchain engineers who successfully built virtual currency custody platforms for regulated financial institutions that proved to be secure (LedgerX and Fidelity, respectively).¹⁹ The skill set required of technologists to build a bank that operates in a truly safe and sound manner *and* can safely take custody of digital assets is highly specialized—we estimate there are only a few dozen system architects in the world who can achieve this and who have successful prior experience building a custody platform, and two of them are on Avanti's team.²⁰

In other words, Avanti has assembled a team highly capable of building a secure and compliant bridge between the traditional banking system and digital assets. Avanti is confident that this team can build, open, and effectively manage the Bank in a safe, sound, compliant, and prudent manner that will accomplish the objectives in this Business Plan and meet regulator and stakeholder expectations.

3. Description of Business

Physical Location

Avanti is headquartered in Cheyenne, Wyoming, which is where we plan to open a physical office in late 2020. Opening this office will satisfy Wyoming's statutory requirement that Avanti's principal operating headquarters and the primary office of its CEO be in Wyoming.²¹ Avanti's business plan is based in large part on digital assets, and as a result, much of its staff will be geographically dispersed. This benefits Avanti in a variety of ways, including in security and business recovery, and improves Avanti's ability to recruit engineers in this highly specialized field.

However, many on the Avanti team (including the majority of the executives) are (or likely will be) based in Cheyenne, including: Chief Executive Officer, Caitlin Long; Chief Banking Officer/CFO, Britney Reddy; Chief Legal Counsel/Chief Compliance Officer, Chuck Thompson; BSA Officer, Erin Young; and System Administrator, Denny Fixmer. We also expect to be hiring for roles locally, including compliance, operations and customer service staff.

Our headquarters and any additional office locations will have security at least commensurate with that of a traditional bank branch, including access control and 24/7 security cameras. As described in detail below, Avanti intends to store a vault containing physical lockboxes (which we plan to use for the secure storage of virtual currency hardware wallets for customers) at our headquarters.

Avanti will operate multiple Hardware Security Modules (HSMs)²² at additional high-security physical locations such as data centers. HSMs are physical devices that store, safeguard, and manage cryptographic keys and perform encryption and decryption functions for digital signatures, secure authentication, and other cryptographic functions.

¹⁹ Two Avanti engineers are among the tiny, specialized group who have successfully merged multiple “commits” into the Bitcoin Core code base, and another Avanti employee recently made his first contribution to Bitcoin Core. This means each of the three Avanti engineers has successfully proposed upgrades to the Bitcoin Core open-source code, and after extensive peer review has had their proposed code accepted and merged into the latest version of the open-source code base. Less than 50 developers in the world maintain the Bitcoin Core code base each month, on average. *See, e.g.*, contributors. GITHUB.COM, <https://github.com/bitcoin/bitcoin/graphs/contributors> (last visited Jun. 4, 2020).

²⁰ One is Avanti's CTO and the other is an adviser who works with Avanti on a part-time basis.

²¹ *See* Wyo. Stat. § 13-12-103(d) (2019) (requiring an SPDI to “maintain its principal operating headquarters and the primary office of its chief executive officer in Wyoming”).

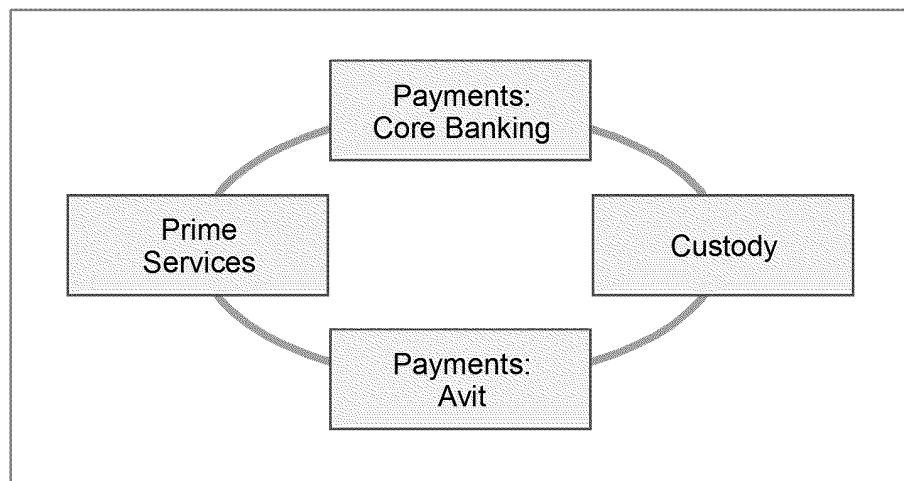
²² *See* SecuroSys, *Primus Hardware Security Modules-HSM*, SECUROSYS.COM, <https://www.secursys.com/en/products/primus-hardware-security-modules-hsm> (last visited Jun. 4, 2020).

We discuss the locations, physical security, and networking characteristics of our HSMs in great detail in the “Infrastructure” section of the business plan.²³

Proposed Activities and Transactions

Avanti proposes to serve the digital asset industry by operating four business lines: (1) payments: core banking; (2) payments: Avit; (3) prime services; and (4) custody. Avanti will primarily target institutional customers looking to gain exposure to digital assets or utilize digital assets for payments with an all-in-one product and service offering.

Table 2: Proposed Avanti Business Lines



1. Payments: Core Banking – Banking services provided and executed via core banking software²⁴
2. Payments: Avit – Issuance/redemption of an electronic negotiable instrument for use in transactions on a delivery-versus-payment basis
3. Custody – Custodial services for digital assets
4. Prime Services – Package of services including fiat on/off ramp (i.e. brokerage of digital assets), escrow, foreign exchange and services matching lenders and borrowers of digital assets (as directed trustee)

Within these business lines, we have listed below the products and activities that we intend to offer at launch or within the first three years of operations. Some of these will be on the bank’s balance sheet,²⁵ while other activity will occur via the trust department of the bank (i.e., off-balance sheet).²⁶ Fiat-related activities will occur primarily on-balance sheet, while other digital asset-related activities will occur off-balance sheet and will be accounted for as assets under administration rather than as deposits. Avit will be accounted for as a trust liability on Avanti’s GAAP financial statements.

²³ Avanti is exploring three different configurations for the HSMs. In one configuration, Avanti operates two HSMs in two different secure data centers under contract with Avanti. In another configuration, Avanti does the same but with three HSMs, two of which would be online and one would be an offline backup device. In a third configuration, Avanti would use a “CloudHSM” service where the HSM is managed by a third-party in another data center. Each of these options are being explored for pricing and whether they are compatible with Avanti’s security and regulatory requirements. The locations under consideration include Greenhouse Data in Cheyenne, Mount10 in Switzerland, Equinix facilities, and others.

²⁴ Avanti is currently evaluating responses to its Request for Proposal from core banking software vendors, including, but not limited to, Temenos, Finxact, and FIS. The Avanti team is evaluating the ability of the core banking software providers to integrate and meet the needs of the digital asset-focused Bank.

²⁵ Wyo. Stat. §§ 13-12-103(b)(iv), 13-12-103(b)(v) (2019).

²⁶ Wyo. Stat. § 13-12-103(b)(vii) (2019).

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Proposed Product Offering Diagram

Avanti's proposed product offerings under each of the four primary lines of business are set forth in Table 3, below.

Table 3: Proposed Product Offering

Payments: Core Banking	Payments: Avit	Custody	Prime Services
Deposit Account	Avit	Pooled Account (fungible bailment)	Fiat On/Off Ramp
Cashier Checks	Issue Avits	Send digital assets	Buy digital assets
ACH transactions	Redeem Avits	Receive digital assets	Sell digital assets
Wire transactions	Transfer Avits		
Online Banking		Physical Storage (non-fungible bailment)	Escrow Services
ACH transactions		Hardware wallet storage	Escrow fiat or digital assets
Wire transactions			Escrow fiat and digital assets
Positive Pay		Omnibus Account (Article 8 UCC)	FX Services
Internal transfers		Send digital assets	Convert currency
Cash swaps		Receive digital assets	
Stop payment ACH		Segregated On-Chain Account (non-fungible bailment)	Lending Customer Digital Assets (matching service only)
		Send digital assets	
		Receive digital assets	
		Multisig Key Management Services	
		Signatory service	

Legend:

Business Line
Product
Activity

Product Prioritization and Timeline

1. Core banking (all services): launch
2. Custody of digital assets:
 - a. pooled account and physical storage: launch
 - b. omnibus account: by year two
3. Avit: launch
4. Fiat On/Off Ramp: launch
5. Escrow Services: launch
6. Segregated On-Chain Account: by year three
7. Foreign Exchange Services: by year three
8. Multisig Key Management Services: by year three
9. Lending Customer Digital Assets (as directed trustee only): by year three

Payments: Core Banking

Banking services provided by, and executed with, the core banking software vendor chosen by Avanti.

1. **Demand Deposit Account:** Avanti plans to initially offer a commercial on-demand deposit account product and, at a later date, a high-net-worth individual on-demand deposit account product, neither of which will be FDIC insured. The individual on-demand deposit account will have a high balance requirement of \$[1 million] to offset the higher administrative expense and regulatory compliance requirements of the product. Deposits will be non-interest-bearing. Avanti plans to offer the following services in connection with the deposit account products:
 - Cashier's checks: primarily expected to be utilized when the issuance of a paper check is necessary in connection with the closure of a customer's deposit account
 - ACH transactions: transactions initiated by online banking portal (see below)
 - Wire transactions: transactions initiated by online banking portal (see below)
2. **Online Banking:** Avanti plans to provide online access for its customers to access their fiat deposit accounts and expects to provide customers with at least the functionality described below. Avanti would also offer a customer API,²⁷ which would be an option for customers that would allow them to develop custom software integrations against the Avanti platform, giving them direct programmatic access to products, services and features provided by Avanti. API requests would go through the Avanti backend powering the online banking portal, and be subject to various rules, security checks, and requirements similar to any action initiated by a customer on the online banking portal.
 - ACH transactions: initiate and manage ACH transactions (including stop payments)
 - Wire transactions: initiate outbound wire transactions
 - Positive pay:²⁸ online fraud mitigation service requiring customer authorization, filters or blocks on ACH and all other transactions
 - Internal transfers: initiate transfers between one Avanti deposit account to another without customers transmitting confidential information ("AvantiNET")²⁹
 - Cash sweeps: initiate and manage cash sweeps from one Avanti deposit account to another owned by the same account holder.

Payments: Avit

One type of payment service Avanti plans to offer is a bank-issued electronic negotiable instrument called "Avit." An Avit is an electronic negotiable instrument—a bank obligation issued as the electronic equivalent of a promissory note, which can be endorsed to a new payee and can be redeemed by the most recent payee. It is akin to a cashier's check but is legally and structurally distinct. Avit has no direct analogue to an existing payment product. Avits are not legal tender, securities or commodities. They are electronic negotiable instruments that provide a private sector solution to the problems of inefficiency and counterparty risk in traditional payment systems.

²⁷ Software startups such as Stripe.com and Synapesfi.com have made their name by providing simple developer interfaces. By marketing primarily to developers, they are the go-to payments integration platform for many businesses. A compelling API is a competitive advantage. Note that a competitor, [REDACTED] Bank, also offers an API. See [REDACTED] Bank, *Banking APIs*, SILVERGATEBANK.COM, <https://www.silvergatebank.com/solutions/bank-apis> (last visited Jun 4., 2020).

²⁸ *All About Positive Pay*, POSITIVEPAY.NET, <http://www.positivepay.net/> (last visited Jun. 4, 2020).

²⁹ Based on our understanding of publicly-available disclosures about the existing payment-service initiatives of other banks, this service is analogous to similar services at competing banks, such as [REDACTED] SEN, and Wells Fargo Digital Cash (both of which are internally-managed ledgers, and neither of which has a token) and Signature's Signet and JPMorgan's JPM Coin (both of which have a token). For example, assume Acme Corp. and Bell Inc. are both customers of Avanti and want to transfer funds between each other using their Avanti accounts. Acme wants to pay Bell. To do this, Bell logs in to the online portal and views Bell's account information to retrieve Bell's AvantiNET Identifier. Off-platform and not associated with Avanti, such as through email, Bell shares its AvantiNET Identifier with Acme (alternatively, both may opt-in to an internal directory). Acme then logs in to the online portal and initiates a transfer from Acme to Bell using Bell's AvantiNET Identifier. Acme's transfer request requires Acme to use the Avanti Dedicated Authorization Mechanism to authorize its transaction. Internally, Avanti maintains a mapping in the Avanti database between AvantiNET Identifiers and internal customer accounts. By giving another customer an AvantiNET Identifier, a customer does not reveal its Avanti bank account numbers. AvantiNET Identifiers are not usable for ACH, wires, or checks.

Avit is a digital asset but it is neither a “stablecoin”³⁰ nor a synthetic central bank digital currency (CBDC).³¹ Avits are a new payment technology but they complement rather than replace existing payment systems, including FedNow.

An extensive discussion of Avits, which is in Appendix A, is summarized is here.

An Avit is:

- An electronic negotiable instrument that will be accepted in transactions on a delivery versus payment basis.
- Fully compliant with all applicable BSA, KYC, AML, OFAC and related laws and regulations.
- Backed 100% by risk-free assets.
- Built upon a robust commercial law foundation.

Legally, an Avit is a “transferable record” under the Uniform Electronic Transactions Act (“UETA”) Section 16 that, if it were issued in paper form, would be a negotiable instrument under UCC Article 3. A detailed legal analysis is in the section “Legal Analysis: Avit Fits Within Existing Law” in Appendix A (see page 115). Since Avanti expects to be a non-lending bank chartered under Wyoming law, it will be required to back 100% of its deposit liabilities with unencumbered risk-free assets (via U.S. dollar deposits in Avanti’s Master Account, in U.S. Treasuries or in other permissible liquid and high-grade investments).³² While the Avit will rely primarily on UETA, other critical clarifications have also been made to Wyoming law that allow the Avit to map onto UCC terminology. Wyoming’s laws help ensure the legal enforceability of digital asset transactions, provide a roadmap for courts to adjudicate disputes, and help clarify the receivership process applicable to financial institutions that handle digital assets (especially SPDIs). Its prudential standards make Wyoming the only jurisdiction in the U.S. where the Avit proposal could be executed in a safe and sound manner. Without these critical building blocks, we do not believe the Avit proposal would be credible.

Because an Avit is an electronic negotiable instrument representing a claim on bank assets, the Wyoming Division of Banking and the Federal Reserve would have a direct line of oversight into Avits at all times, including via Avanti’s Master Account at the Federal Reserve Bank of Kansas City. The Federal Reserve would eventually have direct supervision over Avanti (in the event that it is admitted into the Federal Reserve System as a member bank). Additionally, anyone—including the Wyoming Division of Banking and the Federal Reserve—could at any time monitor Avit activity on the public blockchain upon which Avits are issued.

The likely users of Avit would be sophisticated customers. They would primarily include digital asset traders as well as general businesses looking for a form of payment that enables delivery versus payment / receipt versus payment transactions. As described in the business plan, Avanti does plan to accept as customers high net worth individuals with minimum deposits of \$[1 million], as well as non-U.S. entities and individuals (subject to the foregoing). In all cases, prior to being allowed to access any portion of the Avanti ecosystem, a potential customer will be required to satisfy our compliance screening, as required by the Wyoming Division of Banking and federal and state law. Potential customers in the digital asset trading business have told us “we need this type of solution yesterday,” due to the problems with using wire transfers and ACH in transactions involving digital assets.

³⁰ “Stablecoins” are defined as digital assets whose value is pegged to the value of another asset. Some are collateralized (backed by a pool of the asset whose value they’re designed to mimic) and others are algorithmic (where an algorithm adjusts the supply up or down to maintain a target value). *See, e.g.,* Connor Blenkinsop, *Stablecoins Explained*, COINTELEGRAPH.COM (Apr. 30, 2019), <https://cointelegraph.com/explained/stablecoins-explained>.

³¹ Synthetic CBDC is a new term that means different things to different people. As we use the definition, it means a public/private partnership in which a central bank digital currency—where the obligor is the central bank itself—is distributed by commercial banks, rather than distributed by the central bank directly. A synthetic CBDC would be legal tender, as defined at law. *See, e.g.,* Tobias Adrian, *Remarks by Tobias Adrian at the IMF-Swiss National Bank Conference, Zurich*, IMF.ORG (May 14, 2019) <https://www.imf.org/en/News/Articles/2019/05/13/sp051419-stablecoins-central-bank-digital-currencies-and-cross-border-payments>.

³² Wyo. Stat. § 13-12-105 (2019).

Avit is a private-sector initiative that should help solve three problems: (1) delays in settlement finality for wire transfers and ACH cause problems for digital asset investors;³³ (2) issues related to the fact that the dollar is not currently “programmable”; and (3) the fact that traditional payment systems mostly use a delayed net settlement process, which forces users to trap cash in bank accounts pending payment settlement, introduces credit and fraud risks, and increases friction in the settlement process.

In Appendix A we discuss each of these problems in detail and explain how Avits solve each of them. We also provide extensive legal analysis of Avits, discuss how Avanti will manage the risks pertaining to Avits, provide flow of funds illustrations for Avit transactions, and answer specific policy questions related to Avits.

Custody

Custodial services for digital assets of various types, based on customer demand for custody services.

1. **Pooled Account (Fungible Bailment)**³⁴: This product will be Avanti’s core product offering for custody of digital assets. Avanti expects to pool customer assets in a segregated account (strictly segregated from assets held in any omnibus accounts, if any, as well as segregated from Avanti’s own assets). This product will enable Avanti’s customers to retain title to an amount of digital assets equivalent to their *pro rata* share of the segregated pool, which will be held in bailment by Avanti. Because the digital assets will be held in a fungible bailment (on an Avanti blockchain address), no particular digital asset³⁵ will be assigned to any particular customer. This structure will maintain the integrity of a customer’s ownership in an asset and ensure that customer claims for the return of their digital assets will not be subject to the claims of Avanti’s general creditors in the event of Avanti’s insolvency. Transactions from and to external addresses will be subject to digital asset audits and other screening methods in order to ensure compliance with applicable laws and regulations and to protect the safety and soundness of the institution.
 - Send digital assets: send digital assets from pooled account to a destination address
 - Receive digital assets: generate customer-associated pooled account address to receive digital assets
 - Internal transfers: send payments or transfers between Avanti customers through the online banking portal (as described previously)
2. **Physical Storage (Non-Fungible Bailment)**: Avanti will store a customer’s unique hardware device (which may contain one or more digital asset wallets) in its vault or lockbox. Avanti’s customer will maintain legal title to its hardware device, which will be held in bailment by Avanti. When the customer withdraws the device, the customer will receive its unique hardware device back from Avanti. Avanti intends to structure this product to qualify as a non-fungible bailment under the rules of the Wyoming Division of Banking.³⁶ Avanti expects to offer the following services for its non-fungible bailment product:
 - Storage of unique customer hardware wallet devices, each segregated in a customer-specific vault or lockbox held by Avanti
 - Non-fiduciary custody of the hardware wallet
 - Operation of hardware wallet as directed trustee, as specifically directed by the customer
3. **Omnibus Account (UCC Article 8)**: Avanti expects to offer an omnibus account product option as a companion to our fungible bailment product, but only for those customers for whom Wyoming law will not be the only relevant state law. For those customers, a custodial relationship subject to UCC Article 8 may be required. Under this kind of arrangement (which we call an “omnibus account structure” and which is the same legal structure used by securities custody banks), the customer legally owns a “security entitlement” as

³³ Avanti is also aware that similar problems exist for other participants in the financial industry, such as hedge funds and fintech companies, who have difficulty managing ACH “backstop” facilities. Payment technologies from other countries around the world—including China—are an emerging threat to the U.S. leadership in global finance; we believe Avanti can offer a competitive advantage for all of these participants while staying within the existing U.S. regulatory framework.

³⁴ See Wyo. Banking Div. R., *supra* note 5, § 4(c)(i).

³⁵ For example, a customer that holds a fungible bailment in bitcoin would not be entitled to any particular unspent transaction output (“UTXO”). A UTXO is the value that a bitcoin owner is entitled to spend. See, e.g., Bitcoin Developer, *Transactions*, BITCOIN.ORG, <https://developer.bitcoin.org/devguide/transactions> (last visited Jun. 4, 2020).

³⁶ See Wyo. Banking Div. R., *supra* note 5, § 4(c)(i).

defined by UCC Article 8³⁷ for a quantity of a digital asset, again not a specific UTXO. As with the pooled account structure described above, Avanti will pool omnibus customer digital assets in a segregated account (strictly segregated from assets held in the pooled account as well as Avanti's own assets). Omnibus account customers will have a claim for their *pro rata* portion of the pool of like-kind assets in the event of Avanti's insolvency, which claim will not be subject to the rights of Avanti's general creditors.

- Send digital assets from omnibus account to a destination address
 - Generate customer-associated omnibus account address to receive digital assets
4. **Segregated On-Chain Account (as Non-Fungible Bailment)**: Within the first two years of its operations, Avanti plans to offer dedicated blockchain addresses (and wallet) for each customer without any pooling of customer assets.
- Send digital assets from segregated wallet to a destination address
 - Generate customer-associated segregated account address to receive digital assets
 - No fast, internal transfers between Avanti customers; transfers require withdrawal to and settlement on the external blockchain
5. **Multisig Key Management Services**: Within the first two years of its operations, Avanti plans to offer private key management where Avanti does not maintain control of all private keys in a multi-party, multi-signature arrangement. It is worth noting that Avanti considers this product to fall within the custody business line because it would share both technology infrastructure and operational processes with the custody business.
- Avanti acts as a signatory on one of the keys in a multi-party, multi-signature "signatory as a service" structure
 - Company not necessarily considered to have custody or possession of digital assets under Wyoming law

Prime Services

Avanti's "prime services" will consist of a number of value-added services, including digital asset to fiat exchange (and vice-versa), escrow, foreign exchange, and lending. At launch, the only digital asset that Avanti intends to support will be bitcoin; additional digital assets may be added over time based on customer demand and subject to, among other things, Avanti's analysis of such digital asset and its potential impact on the safety and soundness of the institution, the regulatory regime(s) applicable to such digital asset (*e.g.*, whether any broker-dealer registration issues would be implicated), and Avanti's ability to perform audits on such digital asset.

1. **Fiat On/Off Ramp**: Conversion service between fiat and digital assets
 - Buy digital assets: purchase digital assets with fiat held in a deposit account
 - Sell digital assets: sell digital assets held in a trust account for fiat held in a deposit account
2. **Escrow Services**
 - Escrow fiat or digital assets: escrow fiat on behalf of customer (fiat held in escrow in a trust account) or escrow digital assets on behalf of customer (digital assets held in escrow in a trust account)
 - Escrow fiat and digital assets: provide two-sided escrow service (*i.e.*, both fiat and digital assets)
3. **Foreign Exchange Services**
 - Convert currency: exchange one fiat currency for another; Avanti would partner with a large, established foreign currency exchange or a correspondent bank before entering this product line
4. **Lending Customer Digital Assets (as directed trustee only)**
 - Matching external institutional borrowers with Avanti's customers that choose to lend their digital assets under custody, and direct Avanti (as trustee) to do so on their behalf. Avanti's role is to match lenders and borrowers, for a fee.

³⁷ Wyo. Stat. § 13.1-8-102(a)(xvii) (2019).

Flow of Funds

Core Banking: Demand Deposit Accounts and Online Banking

A potential customer will initiate contact with Avanti via an online portal for new account opening, through which the potential customer will submit all required customer onboarding and due diligence information. Avanti will then use that information for BSA/AML/KYC and related regulatory screening, including OFAC, all applicable government lists, and a traditional Chexsystems or Lexis/Nexis screen. Avanti will assign a risk rating to each potential customer, and depending on the rating, a potential customer will either be able to open the account online or the account application will be flagged with “further due diligence required.” A member of Avanti’s compliance staff will contact all “further due diligence required” account applicants to further evaluate risk. Other account holders will be able to proceed with opening an account and making a deposit via ACH or wire transfer. Avanti will hold the deposit, or a portion thereof, as a “new account hold” for a specified period of time, based upon applicable risk factors and in compliance with applicable laws and regulations. Once the initial deposit has been made and it is free of any holds, the customer will be cleared to interact with its new account electronically.

We intend to frequently assess high inactive and dormant account fees to discourage accounts with no activity.

A key component of Avanti’s security strategy is that its online portal will require a customer authorization device, called a “dedicated authentication mechanism” (as explained in detail below), which will allow a customer to authorize a wire transfer, provide ACH instructions to Avanti, withdraw or transfer digital assets, or transfer funds between Avanti accounts. These are the only activities permitted on the Avanti demand deposit and online banking accounts. Avanti will restrict all other transactions with transaction code restrictions. Avanti’s demand deposit account will only allow transaction codes associated with ACH and wire; all other transaction codes (for example, a check transaction code) will be rejected and during the daily non-post all such rejected transactions will be returned. All deposits and withdrawals from Avanti demand deposit and online banking accounts will occur by wire transfer, internal transfer or ACH.

The “dedicated authentication mechanism” is a security device that Avanti customers will use for authorizing sensitive actions through the online banking portal. Avanti intends to develop an Android app and an iPhone app so that customers may bring their own personal phones, or if they desire stronger security then they can purchase purpose-specific smartphones. The mobile application will pair with a FIDO2 token³⁸ or other security token. When the user initiates a transaction in the online portal, they will be required to perform some verification and authorization activities on the mobile application, and, in some cases, also by email. Details about the pending request will be displayed on the mobile application, and the customer has a chance to authorize or reject the message displayed on screen. In the future, this system can be expanded to require multiple personnel at a customer’s company to authorize wire transfers, ACH transfers, or digital asset withdrawal or transfer requests.

Transaction risk will be mitigated by a “Reserve for Transaction Risk” which will be funded by capital or retained earnings. This reserve will function similarly to the reserve for loan loss in a traditional bank. This account will be booked as an asset on the balance sheet and will be funded to cover any non-post or item processing errors. This account will be maintained in the Master Account.

Avanti plans to use a core provider and a payments module to facilitate any externally facing fiat transactions. Avanti expects to utilize ACH, Fedwire, and possibly SWIFT as payment rails. All interaction with digital assets will occur on the trust department side of Avanti; customer-to-customer transactions will be reflected as book-entry transactions within Avanti, and transfers on and off of the Avanti platform will utilize the relevant public blockchain. Avanti will ensure communication between the traditional core and digital asset-related modules built in-house, which will allow for a seamless customer experience and enable Avanti to monitor associated risks in real-time to help ensure the safety and soundness of the institution.

³⁸ The FIDO Alliance is an open industry association launched in February 2013 whose mission is to develop and promote authentication standards that help reduce the world’s over-reliance on passwords.

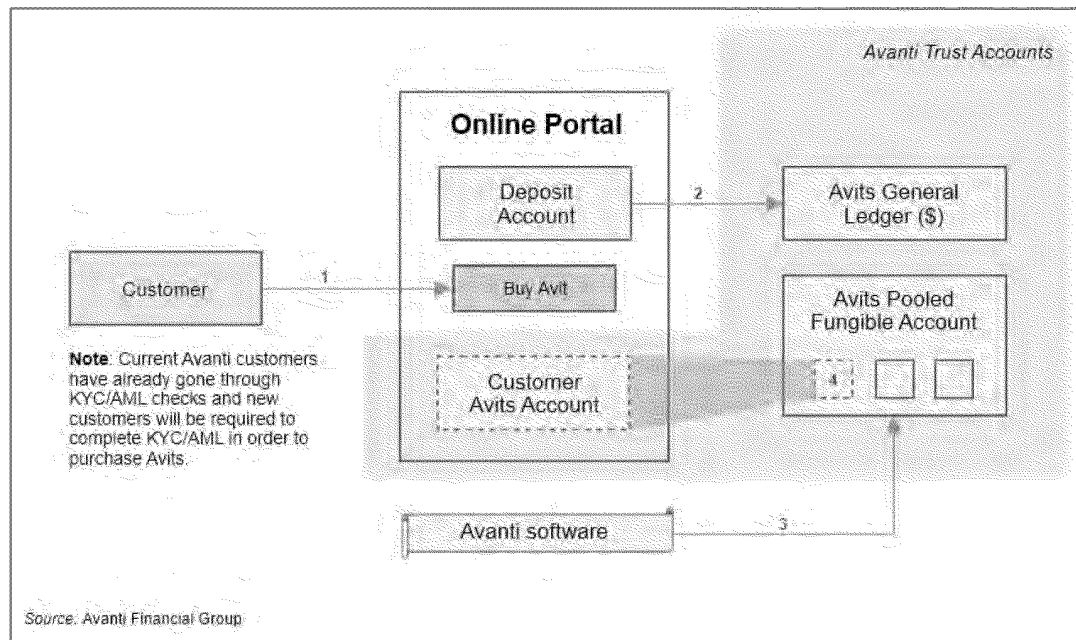
All potential customers will initially interact with the fiat side of Avanti. Once a fiat deposit account is successfully opened (after the customer has successfully satisfied all applicable due diligence requirements), the customer would be able to proceed with digital asset services.

Avits

Issuing an Avit to Customer's Avanti Custody Account

1. Customer submits request to buy Avits
 - a. Customer must have successfully completed appropriate BSA/KYC/AML checks in order to be issued a fiat deposit account
 - b. Customer must have available funds in their existing Demand Deposit Account at Avanti
 - c. Transaction is initiated via the online portal using a multifactor device
 - d. Customer inputs the Avit amount desired (less than or equal to the Available Demand Deposit Account balance)
 - e. Customer agrees to Avanti fee and customer disclosures
 - f. Customer specifies whether the Avits should be delivered into an Avanti custodial (pooled fungible) account or, alternatively, an external blockchain-based destination outside the Avanti platform
 - g. The pooled fungible account allows for immediate bilateral settlement when both parties to a transaction maintain assets in this account structure (as settlement is executed via database entry)
2. Avanti initiates a demand deposit (debit) from the customer's fiat deposit account for the Avit purchase and a Trust General Ledger is the offsetting credit
 - a. Applicable fees debited from the Demand Deposit Account and credited to the Income General Ledger
 - b. Avanti's balance at its Master Account with the Federal Reserve Bank of Kansas City does not change
3. Avanti initiates a new Avit minting transaction (on a blockchain) sending the new Avit into the Avit Pooled Fungible account (a custodial trust account) on behalf of customer
 - a. Transaction not final until next signing ceremony and blockchain confirmations accrue
4. Customer Avit custody account credited to reflect ownership of Avits in Avanti Pooled Fungible account
 - a. Customer Avit account is a sub-account of the Avits Pooled Fungible account
 - b. Immediately following signing ceremony completion and after the mint transaction has a sufficient number of confirmations, depending on the blockchain on which the Avit is issued
 - c. Customer's account will receive Avits 1:1 (this is simply a ledger entry)
 - d. Legally, customer owns a pro rata share of the pool of Avits held in custody by Avanti's trust department in the form of a fungible bailment

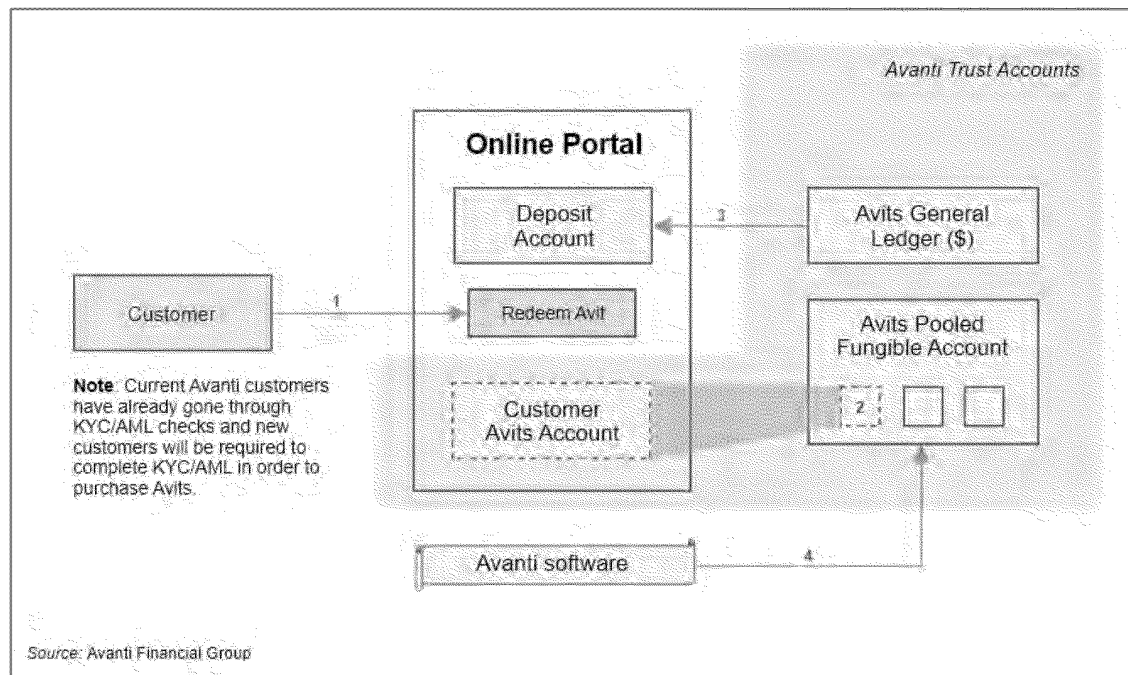
Table 4: Avit Issuance Transaction: Flow of Funds



Redeeming an Avit

1. Customer submits request to redeem Avits
 - a. Customer must have already completed appropriate KYC/AML checks in order to be issued a fiat deposit account
 - i. Note that any customer that redeems Avit must go through Avanti's onboarding process and required due diligence
 - b. Customer must have available balance in its existing Avits Account at Avanti
 - c. Done through online portal, via a "Redeem Avit" button
 - d. Customer inputs the Avit amount desired (less than or equal to Avits Account balance)
 - e. Customer agrees to Avanti fee
2. Customer Avit custody account debited to reflect redemption of Avits in Avanti Pooled Fungible account
 - a. Customer Avit account is a sub-account of the Avits Pooled Fungible account
 - b. Avits will still exist on a blockchain until signing ceremony is completed
3. Avanti executes an internal transfer (debit) of U.S. dollars from the Avits General Ledger (a trust account holding cash backing Avits) to the customer's Deposit Account (a bank account)
 - a. Applicable fees deducted from Deposit Account
 - b. Avanti's balance at its Master Account with the Federal Reserve Bank of Kansas City does not change
4. Avanti initiates a new Avit burning transaction (on a blockchain) removing the "unassigned" Avit from the Avit Pooled Fungible account (a custodial trust account)
 - a. Transaction is not final until next signing ceremony occurs and blockchain confirmations occur
 - b. The burn transaction does not delay the redemption for customer convenience reasons (however, as discussed more fully in the "Design Decision" section below, Avanti has not yet settled on a specific methodology here, and may ultimately choose an alternative). The unassigned excess Avits would be akin to treasury stock (reported on a corporation's balance sheet, which are shares authorized but not issued and outstanding and which have no value). Avanti would "burn" (*i.e.*, destroy) unassigned excess Avits on some regular schedule, such as once per month. Authorized but unassigned Avits would remain in the Avits Pooled Fungible Account in the name of an Avanti house account.

Table 5: Aviti Redemption Transaction: Flow of Funds



Prime Services: Fiat On/Off Ramp

With respect to the purchase and sale of digital assets, Avanti plans to integrate with a variety of liquidity partners, including exchanges and over-the-counter (“OTC”) providers.³⁹ Many of these providers have API-based solutions,⁴⁰ which Avanti intends to leverage to provide a seamless and efficient process for our customers. Only supported digital assets will be permitted. At launch, the only digital asset that Avanti intends to support will be bitcoin; additional digital assets may be added over time based on customer demand and subject to, among other things, Avanti’s analysis of such digital asset and its potential impact on the safety and soundness of the institution, the regulatory regime(s) applicable to such digital asset (e.g., whether any broker-dealer registration issues would be implicated), and Avanti’s ability to perform audits on such digital asset.

Avanti is not an exchange and will not operate a trading desk. It is a fee-based service provider for digital assets, not a trading counterparty that runs a proprietary trading business. Avanti merely matches buyers and sellers (and, eventually, borrowers and lenders) for a fee.

Below is a step-by-step list of a representative transaction (using BTC for this example) in this category:

Purchasing Digital Assets

0. Liquidity provider sends BTC to escrow account
 - If liquidity provider is comfortable keeping BTC with Avanti, this replaces step 7
1. Customer requests bid for BTC purchase
 - Additional approvals/process for large requests
 - Initiated through online portal, via a “Buy BTC” button
 - Customer inputs BTC amount they are looking to purchase
 - Customer must have adequate funds in deposit account before requesting bid
2. APIs request bids from various liquidity providers

³⁹ OTC transactions are conducted “off-exchange” and are directly executed between two parties.

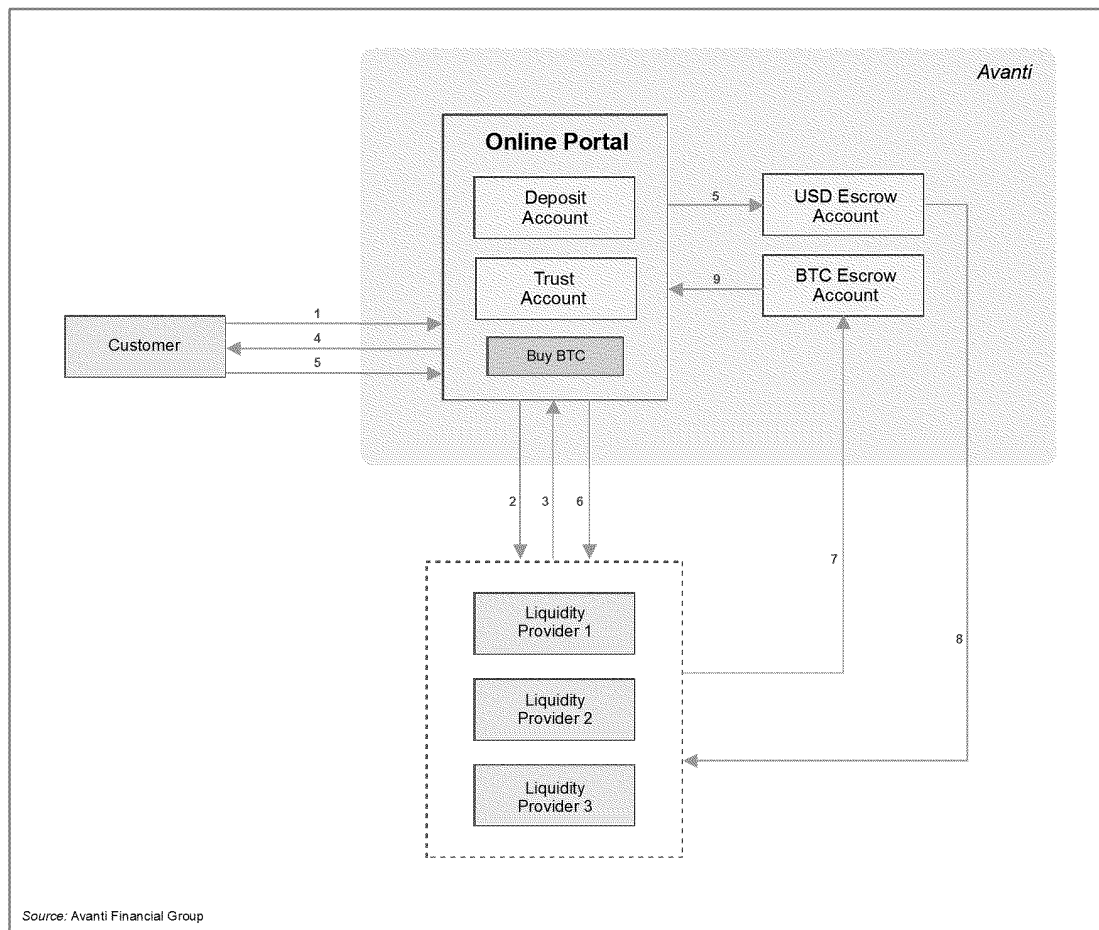
⁴⁰ An application programming interface (“API”) is a computing interface which defines interactions between multiple softwares and in this case allows for automated trading activities, without the need for manual intervention.

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- At a minimum, two liquidity providers
- Includes price reasonability check
- Some APIs are live stream while others are request for quote
- 3. Bid information returned to Avanti
 - Avanti will determine appropriate timeout for responses
- 4. Best bid provided to Customer for acceptance request
 - Customer will only see best bid received and likely have a very short amount of time to send acceptance request (e.g. 30 seconds)
- 5. Acceptance request sent to Avanti and USD funds moved to Escrow
 - Funds automatically move to escrow (may be inclusive of Avanti fee)
 - This is simply a request and not a trade confirmation
 - Transaction now in “pending” state
- 6. Acceptance request returned to liquidity provider
 - If returned within the provided time-frame, the transaction is now contractually binding
- 7. Liquidity provider sends BTC to escrow account, if BTC is in custody outside of Avanti
 - If liquidity provider is comfortable keeping BTC with Avanti, this happens before step 1
 - Would have a contractual settlement window
- 8. USD released from escrow to liquidity provider
 - As soon as BTC transaction is confirmed
- 9. BTC released from escrow to customer trust account (i.e., BTC in pooled account, ledger entry reflects customer’s share)
 - This happens at the same time USD is released
 - If customer is using Avanti’s pooled custody product, this is simply a ledger entry
 - If customer is using a segregated BTC wallet address, this is a blockchain transaction requiring confirmations
- 10. Trade confirmation receipt sent to all parties (not pictured)

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Table 6: Purchasing Digital Assets

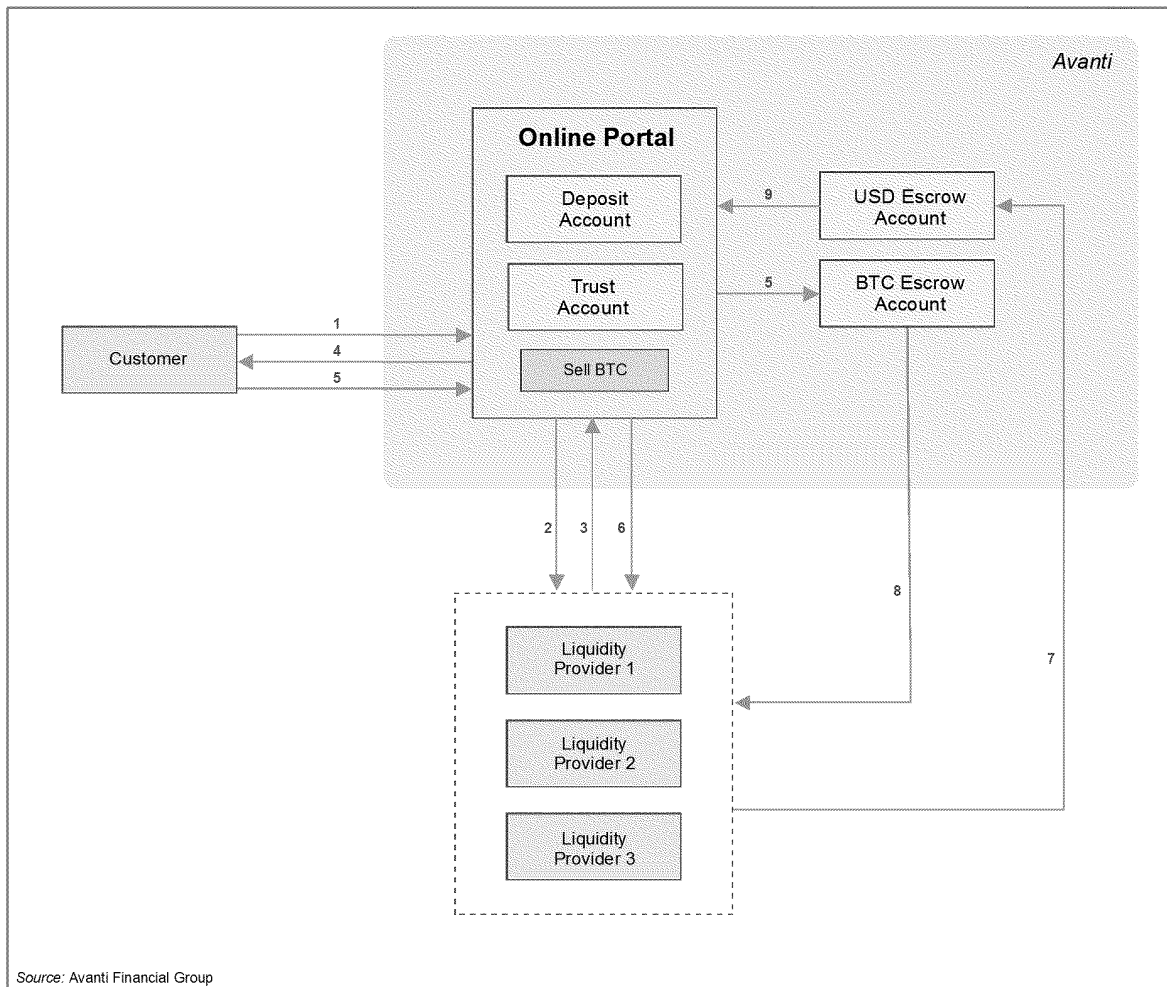
**Selling Digital Assets**

- Liquidity provider sends USD to escrow account
 - If liquidity provider is comfortable keeping USD with Avanti, this replaces step 7
- Customer requests bid for BTC sale
 - Initiated through online portal, via a "Sell BTC" button
 - Customer inputs BTC amount they are looking to sell
 - Customer must have adequate BTC in trust account before requesting bid
- APIs request bids from various liquidity providers
 - At a minimum, two liquidity providers
 - Includes price reasonability check
 - Some APIs are live stream while others are request for quote
- Bid information returned to Avanti
 - Avanti will determine appropriate timeout for responses
- Best bid provided to customer for acceptance request
 - Customer will only see best bid received and likely have a very short amount of time to send acceptance request (e.g. 30 seconds)
- Acceptance request sent to Avanti and BTC moved to Escrow
 - BTC automatically moves to escrow (may be inclusive of Avanti fee)
 - Additional approvals/process for large requests
 - This is simply a request and not a trade confirmation
 - Transaction now in "pending" state
- Acceptance request returned to liquidity provider

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- If returned within the provided timeframe, the transaction is now contractually binding
- 8. Liquidity provider sends USD to escrow account, if USD is in account outside of Avanti
 - If liquidity provider is comfortable keeping USD with Avanti, this happens before step 1
- 9. BTC released from escrow to liquidity provider
 - As soon as Avanti confirms receipt of funds
- 10. USD released from escrow to customer deposit account
 - This happens at the same time BTC is released
- 11. Trade confirmation receipt sent to all parties (not pictured)

Table 7: Selling Digital Assets



Prime Services: Escrow Services

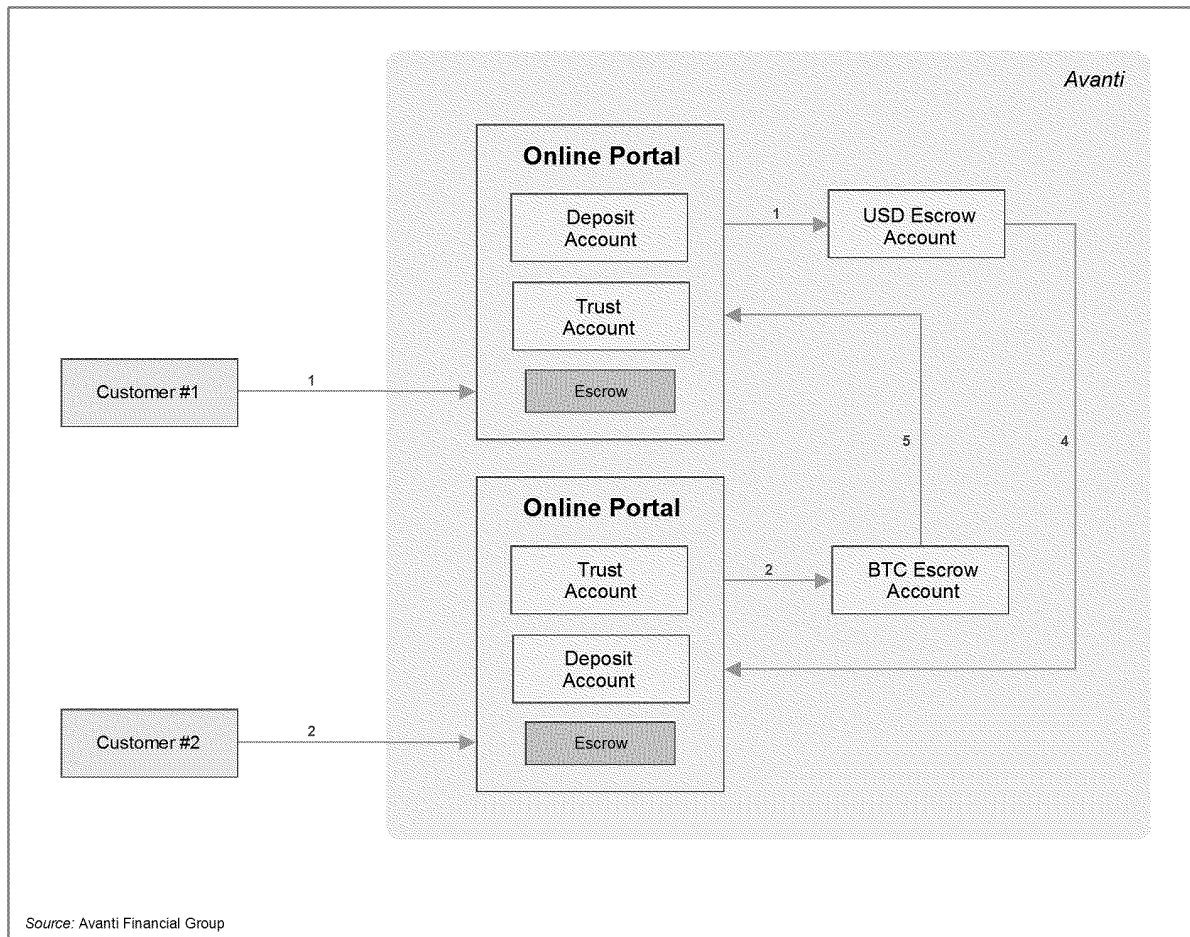
Escrow Fiat and Digital Assets

1. Customer #1 submits escrow details and funds escrow account with fiat
 - USD amount to be escrowed, time allowed, release conditions, and destination account
 - E.g. If 10 BTC is received at address xyz within 60 minutes, send \$x to bank account number 123
2. Customer #2 reviews/confirms escrow details and transfers digital assets to escrow account
 - Transaction is now binding
3. Avanti review and confirmation (not pictured)
4. USD sent to customer #2 deposit account (instructions/contingency have been met)

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5. At the same time, BTC sent to customer #1 trust account
6. Trade confirmation receipt sent to all parties (not pictured)

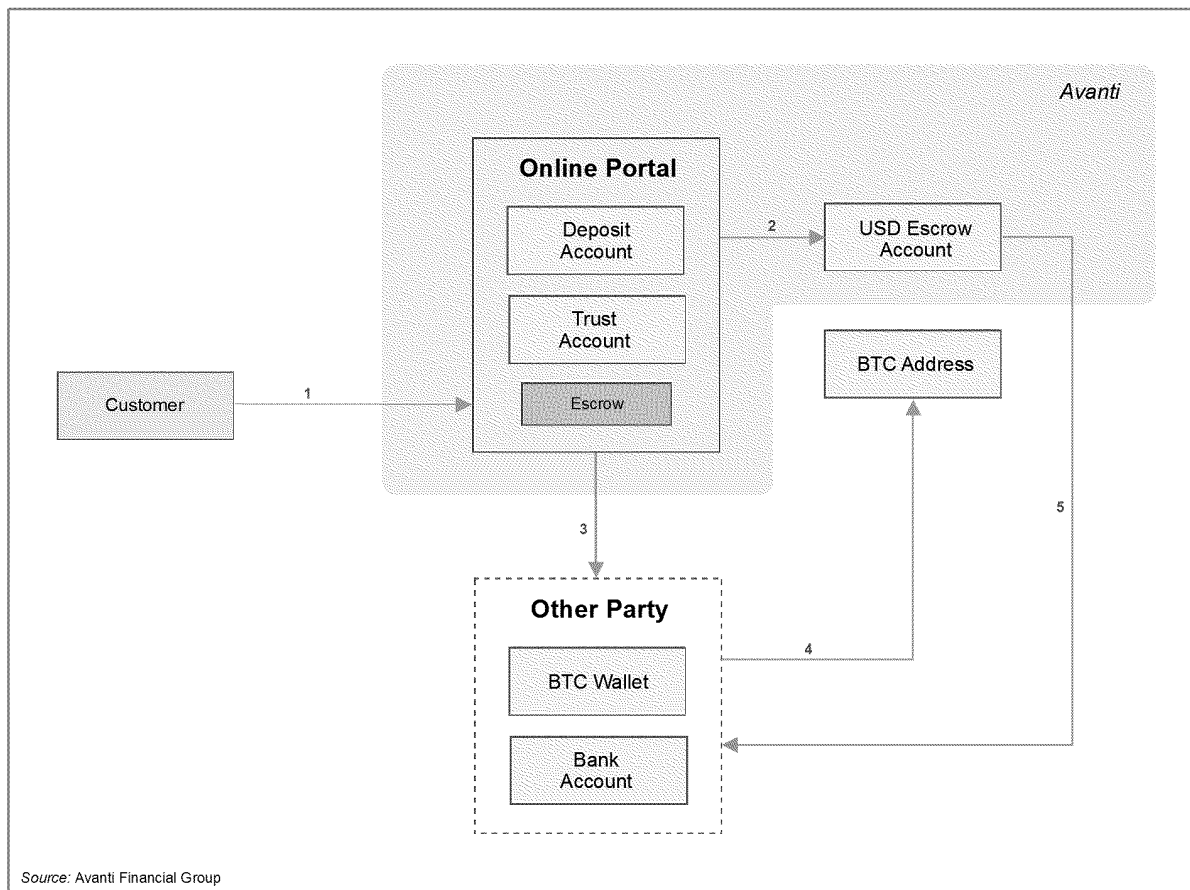
Table 8: Escrow Services for Fiat and Digital Assets



Escrow Fiat

1. Customer submits escrow details
 - o USD amount to be escrowed, time allowed, release conditions, and destination account
 - o E.g. If 10 BTC is received at address xyz within 60 minutes, send \$x to bank account number 123
2. Funds moved to escrow account
 - o Note: legal agreements in place between Avanti and its customer
3. Conditions provided to third party (not an Avanti customer)
 - o Other party needs proof that transaction has been initiated and will execute upon certain conditions being met
4. Other party sends BTC to agreed address
 - o This will need to be directly included in escrow conditions
5. Avanti confirms BTC receipt and sends funds from escrow to other party
 - o Avanti will begin monitoring wallet as soon as conditions are provided and agreed to by the customer
 - o Exact conditions must be met or funds do not get released from escrow
6. Trade confirmation receipt sent to all parties (not pictured)

Table 9: Escrow Services for Fiat



Compliance Responsibilities

Avanti compliance will be the responsibility of its Chief Compliance Officer, who will be supported by the Chief Banking Officer and BSA Officer.

Avanti's Chief Compliance Officer is **Chuck Thompson**. Chuck has extensive experience in financial regulation and law, both in traditional finance and digital assets. Previously, he was Chief Compliance Officer at LedgerX, where he developed and implemented the compliance program for the first federally regulated exchange and clearing house to list and clear derivatives on digital assets. Although not explicitly required by any law or regulation then applicable to LedgerX, Chuck nonetheless developed and implemented a BSA/AML compliance program while he was Chief Compliance Officer at LedgerX. He has also helped to develop compliance policies for several broker-dealers involved with the digital asset space. Between 1999 and 2004 and again from 2011 to 2014, Chuck practiced law in New York at Cleary Gottlieb Steen & Hamilton, where he developed a broad legal background in financial and regulatory matters. While at Cleary, Chuck was a contributor to, and editor of, the U.S. Regulation of the International Securities and Derivatives Market and the Guide to Bank Underwriting, Dealing and Brokerage Activities treatises. In the intervening years, among other things, Chuck was an in-house lawyer with the Fixed Income Division at Morgan Stanley and counsel at Shearman & Sterling. Chuck has been involved with digital assets since 2011.

Britney Reddy is the bank's Chief Banking Officer and the Chief Financial Officer. She will support Chuck in the Compliance role, as she has a traditional banking compliance background and has spent almost two decades in traditional banking. She has served in many different executive roles at Wyoming community banks, including as Chief Compliance Officer (as well as Chief Executive Officer, President, Chief Technology Officer and Chief Operating Officer). She has extensive experience with core banking software providers, with whom she has designed

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and implemented multiple Compliance programs for traditional banks. Britney has spent the majority of her career in banks supervised by the Wyoming Division of Banking.

Avanti's BSA Officer is **Erin Young**. Erin has six years of BSA/AML experience in traditional banking, and just recently left such a position at a community bank based in Cheyenne. Erin has extensive experience with traditional BSA policies, procedures, and software.

In addition to Erin as BSA Officer, Chuck has multiple years of BSA/AML experience directly related to securities, commodities and digital assets and Britney has multiple years of BSA/AML experience directly related to traditional banking. They will work together to ensure Avanti meets all applicable compliance regulations, including, but not limited to, BSA/AML/CFT/OFAC and other requirements.

Avanti is in discussions with multiple BSA transactional risk/monitoring vendors and intends to engage two of them to assist in the BSA/AML/fraud monitoring; one on the traditional core banking side and one on the digital asset custody side. We are currently engaged in conversations with Temenos FCM, ComplyAdvantage, Wolters Kluwer and IdentityMind on the traditional core banking side, and Elliptic and Chainalysis on the digital asset side.

Compliance risk will be evaluated with the completion of a compliance risk assessment, which will be completed after all of the products and services are finalized. The risk assessment will include the applicable regulations, the internal controls to mitigate risk, the risk score and the frequency of the internal audits.

Each of compliance and BSA/AML will have annual external reviews completed by qualified external audit companies. Thus far firms that have been evaluated are Fortner Baynes Levkulich and Garrison PC, and RSM International. These have been preliminary conversations and additional external service providers will be interviewed prior to final selection.

Business Risk Assessment

Avanti's Business Risk Assessment incorporates all known business functions and assigns a risk weighting to each function for associated risk in six categories: operational; liquidity; transaction; compliance; strategic; and reputation. The possible risk weightings are 1 (lowest risk), 2 (medium risk) and 3 (high risk). The risk weightings assigned to a given business function in each of these risk categories is then averaged to derive an overall risk score for that business function.

A relative risk factor is similarly assigned to each business function based on a variety of factors, such as the result of a recent audit, changes in processes or systems, changes in products, expertise in personnel and management, and the size and complexity of the department or function.

Once both a risk score and a relative risk factor has been assigned to a business function, a total risk score is calculated by multiplying the risk score calculated for such business function by the relative risk factor calculated for such business function.

Finally, the risk level associated with a business function is determined by reference to the total risk score:

<u>Risk Level</u>	<u>Total Risk Score</u>
Low Risk:	<2.5
Moderate Risk:	>2.5 and <4.0
High Risk:	>4.0

The total risk score is used to determine audit frequency and to assist management in understanding where the greatest risk lies within the business. An audit schedule will be determined and each category that receives a risk level or moderate or high will be audited at a minimum annually.

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Table 10: Avanti's Business Risk Assessment

	Operational	Liquidity	Transaction	Compliance	Strategic	Reputation	Totals	Risk Score	Relative Risk Factor	Total Risk	Risk Level
FINANCE AND OPERATIONS											
Financial Accounting and Reporting											
ACCOUNTING/GENERAL LEDGER	2	1	2	2	1	2	10	1.67	1.50	2.50	MODERATE
RESERVE FOR TRANSACTIONAL RISK	2	2	3	3	1	1	12	2.00	1.33	2.67	MODERATE
ASSET/LIABILITY MANAGEMENT (ALM)	2	2	1	2	2	1	10	1.67	1.33	2.22	LOW
FIXED ASSETS	1	1	1	1	1	1	6	1.00	1.33	1.33	LOW
INVESTMENTS	1	1	1	1	1	1	6	1.00	1.33	1.33	LOW
Bank Operations											
WIRES	2	1	2	3	1	3	12	2.00	1.50	3.00	MODERATE
CASHIERS CHECKS	1	1	1	1	1	1	6	1.00	1.33	1.33	LOW
ACH	2	1	2	2	1	3	11	1.83	1.50	2.75	MODERATE
POSITIVE PAY	2	1	2	3	1	3	12	2.00	1.33	2.67	MODERATE
DORMANT/INACTIVE ACCOUNTS	1	1	1	2	N/A	1	6	1.20	1.33	1.60	LOW
GARNISHMENTS AND LEVIES	1	1	1	2	N/A	1	6	1.20	1.33	1.60	LOW
INTERNAL ACCOUNTS	2	1	2	3	N/A	N/A	8	2.00	1.33	2.67	MODERATE
CUSTOMER ONBOARDING	2	1	1	3	N/A	3	10	2.00	1.33	2.67	MODERATE
Corporate Governance											
BOARD OF DIRECTORS	N/A	N/A	1	2	2	3	8	2.00	1.33	2.67	MODERATE
CODE OF CONDUCT	N/A	N/A	1	2	2	2	7	1.75	1.33	2.33	LOW
Trust Custody											
DIGITAL ASSET CUSTODY	3	1	3	2	2	3	14	2.33	1.67	3.89	MODERATE
AVIT	3	1	3	2	2	3	14	2.33	1.67	3.89	MODERATE
FIAT ON/OFF RAMP	3	1	3	2	2	3	14	2.33	1.67	3.89	MODERATE
SEGREGATED ON-CHAIN ACCOUNTS	3	1	3	2	2	3	14	2.33	1.67	3.89	MODERATE
FX SERVICES	3	1	3	2	2	3	14	2.33	1.67	3.89	MODERATE
MULTISIG KEY MANAGEMENT	3	1	3	2	2	3	14	2.33	1.67	3.89	MODERATE
REGULATORY COMPLIANCE											
Deposit / Operations / Administrative											
ACH/NACHA	2	N/A	2	2	N/A	3	7	2.25	1.50	3.38	MODERATE
ADVERTISING	1	N/A	N/A	2	2	2	5	1.75	1.33	2.33	LOW
ANNUAL DISCLOSURE OF FINANCIAL INFORMATION	1	N/A	N/A	3	2	2	13	2.00	1.33	2.67	MODERATE
ANTI-MONEY LAUNDERING (BSA, OFAC, CIP, USA PATRIOT)	2	N/A	1	2	N/A	3	11	2.00	1.67	3.33	MODERATE
DEPOSITS AND REG DD, GG	N/A	N/A	1	3	N/A	3	9	2.33	1.33	3.11	MODERATE
ELECTRONIC FUNDS TRANSFER ACT – REGULATION E	N/A	N/A	3	3	N/A	3	7	3.00	1.50	4.50	HIGH
FUNDS AVAILABILITY	1	1	2	2	N/A	2	11	1.60	1.33	2.13	LOW
INTERBANK LIABILITIES – REGULATION F	N/A	N/A	1	2	3	3	7	2.25	1.33	3.00	MODERATE
HUMAN RESOURCES	N/A	N/A	2	2	N/A	2	7	2.00	1.33	2.67	MODERATE
PRIVACY	N/A	N/A	1	2	N/A	3	7	2.00	1.33	2.67	MODERATE
DATA RETENTION	N/A	N/A	N/A	1	N/A	1	7	1.00	1.33	1.33	LOW
VENDOR MANAGEMENT	N/A	N/A	2	3	N/A	3	7	2.67	1.50	4.00	HIGH
Information Systems											
BUSINESS (DISASTER) RECOVERY	3	1	2	3	3	3	18	2.50	1.50	3.75	MODERATE
ELECTRONIC BANKING-TECHNOLOGY	2	N/A	2	3	3	3	11	2.60	1.50	3.90	MODERATE
SOCIAL ENGINEERING ASSESSMENT	N/A	N/A	2	3	2	3	10	2.50	1.50	3.75	MODERATE
WEBSITE REVIEW-COMPLIANCE AND ADMINISTRATION	1	N/A	2	3	2	3	3	2.20	1.50	3.30	MODERATE
TESTING OF ALARMS	N/A	N/A	2	3	1	1	3	1.75	1.33	2.33	LOW
NETWORK SECURITY	3	N/A	3	3	3	3	3	3.00	1.67	5.00	HIGH
SOFTWARE PROGRAMMING	3	N/A	3	3	3	3	3	3.00	1.67	5.00	HIGH

1 – Low Risk
2 – Medium Risk
3 – High Risk

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Potential Payment System Risk Policy Implications

Wyoming's SPDIs have statutory restrictions on the type of investments they can hold on their balance sheet. The SPDI laws and regulations require SPDIs to maintain unencumbered liquid assets and capital in investments in cash on deposit in a Master Account or federally insured financial institution, U.S. Treasury obligations, investment-grade U.S. State or U.S. municipal government obligations, investment grade debt securities issued by a U.S. federal or state government agency, gold, silver or other stable commodities. In addition, the lack of FDIC insurance requires full reserves on all customer deposit balances.

For operational risk reasons Avanti plans to take a conservative approach to the balance sheet initially. We plan to deposit all customer deposits in Avanti's Master Account. This approach allows Avanti to ensure that the full reserve is not compromised while learning customer behavior. This balance sheet structure is simpler than that of a traditional financial institution because it is so limited—a Federal Reserve Master Account, a reserve for transactional risk, fixed assets, prepaid/trust account, checking and equity (including required regulatory capital). The simple balance sheet reduces the complexity of liquidity management⁴¹ and diminishes the risk of Avanti's Master Account becoming overdrawn.

In addition to the simple balance sheet structure, Avanti intends to meet or exceed the following Payment System Risk Management Standards which are identified in the appendix of the Federal Reserve Bank's Payment Systems Policy:

1. Legal Basis: As described in detail throughout this document, Avanti is incorporated under the laws of the State of Wyoming in order to apply for an SPDI charter from the Wyoming Division of Banking. Avanti also intends to apply to the Federal Reserve Bank of Kansas City for a Master Account, and ultimately may apply to the Federal Reserve for membership. Avanti's operations will be governed by the applicable federal law and regulations, applicable laws and regulations of the State of Wyoming and the rules of the Wyoming Division of Banking. As described herein, Avanti is focused on establishing a well-founded, clear, transparent, and enforceable legal basis for each material aspect of its business, including through its customer agreements.
2. Governance: As Avanti establishes its governance arrangements, it will ensure that they are clear and transparent, promote the safety and efficiency, and support the stability of the broader financial system, other relevant public interest considerations, and the objectives of relevant stakeholders. Avanti intends to implement internal controls and governance arrangements (including via its board of directors, which initially will be five members, three of which are non-executive) reasonably designed to assure that it is able to achieve these objectives.
3. Framework for the Comprehensive Management of Risk: Avanti will have a comprehensive risk management framework built on policies and procedures and internal controls and which is designed to identify, monitor and mitigate its risks and to ensure that appropriate measures are taken to avoid risks where feasible.
4. Credit Risk: As an SPDI, Avanti is not permitted to engage in traditional lending activity, including in the form of demand deposit overdraft protection, that would subject Avanti to credit risk. As a result, Avanti's credit risk will be limited to its payments, clearing and settlement processes. This credit risk will be measured and monitored as part of Avanti's comprehensive risk management framework and further mitigated by a reserve for transactional risk that Avanti will fund with capital and retained earnings.
5. Collateral: Avanti will not engage in lending operations similar to those of a traditional financial institution and, therefore, will not require collateral to manage a customer's credit exposure. Consequently, collateral risk is not applicable.
6. Margin: As a bank that does not engage in lending funded by customer deposits or bank assets, Avanti will not provide margin on any product, portfolio or market that it serves. Consequently, margin risk is not applicable.
7. Liquidity Risk: Avanti will develop a robust framework to effectively measure, monitor, and manage its liquidity risk. Avanti expects that, due to the simple nature of its balance sheet, it will have limited potential sources of liquidity risk. However, the comprehensive risk framework noted in #3 above will also address the management and monitoring of liquidity risk and to mitigate such risk to the extent feasible.

⁴¹ Managing the liquid assets and the short-term investments to reconcile the excess available to invest and to cover expected (or unexpected) cashflows.

8. Settlement Finality: In all possible cases Avanti will provide clear and certain final settlement intraday or in real time, generally on the basis of federal and state laws and regulations for irrevocability (leveraging commercial law principles, supplemented with Avanti-specific rules and contracts⁴²) and on the basis of applicable insolvency laws for enforceability.
9. Money Settlements: Avanti intends to conduct all of its money settlements in U.S. dollars to avoid credit and liquidity risks. To the extent that settlement is performed through one or more commercial banks, Avanti will monitor the credit and payment risk associated therewith as part of its overall risk management framework.
10. Physical Deliveries: Avanti does not anticipate that it will have any physical instruments or commodities; therefore, this risk is not applicable to Avanti.
11. Central Securities Depositories: Avanti does not anticipate issuing, transferring or safekeeping depository-eligible securities (such as traditional stocks and bonds). Therefore, this risk is not applicable to Avanti. Note that some of the digital assets that its trust customers may choose to custody at Avanti may be digital securities, but such securities would be issued in digital form and therefore would not implicate central securities depositories.
12. Exchange-of-Value Settlement Systems: Avanti will ensure that there is no scenario where the final settlement of one obligation will be conditional upon the final settlement of the other by ensuring that the final settlement of one obligation occurs if and only if the final settlement of the other obligation also occurs. Its systems will be supported by delivery versus payment / receipt versus payment settlement to eliminate principal risk.
13. Participant-Default Rules and Procedure: Avanti will manage all vendors closely and have the appropriate procedures in place to manage vendor default in order to ensure that Avanti is able to meet its obligations. In addition, in respect of its customers, Avanti will not be engaging in any lending activity that creates credit or liquidity risk; the default of a customer of Avanti is thus unlikely to adversely affect the institution. However, Avanti intends to monitor the credit and payment risk of its customers and vendors to the extent necessary or appropriate to manage any such risk.
14. Segregation and Portability: Avanti will employ systems and account structures which segregate customer assets from those of the firm and enable Avanti at all times to identify its customers' assets (including those held in individual customer accounts and in omnibus or pooled customer accounts). This segregation will also facilitate the ability to port customer assets, whether outside or in the context of insolvency or resolution.
15. General Business Risk: Avanti will identify, monitor, and manage its general business risk and hold sufficient liquid net assets funded by equity to cover potential general business losses so that it can continue operations and services. The SPDI charter allows for only liquid asset investments which reduces the risk in this category.
16. Custody & Investment Risk: Avanti will be investing in only unencumbered liquid assets (comprised of cash in its Master Account or a federally insured financial institution, U.S. Treasuries, investment-grade U.S. State or U.S. municipal government obligations, investment grade debt securities issued by a U.S. federal or state government agency, gold, silver or other stable commodities) and will be a full reserve bank; therefore, the risk of loss or the delay in access to assets will be minimal as compared to a bank with fractional reserves.
17. Operational Risk: Avanti is identifying the plausible sources of operational risk by means of a risk assessment pursuant to which both internal and external risks will be identified and, thereafter, a plan to mitigate those risks and their potential impact will be established. Avanti intends to establish comprehensive operational risk management systems and controls; such systems will be designed with a high degree of security and operational reliability and will be designed with scalable capacity. Business continuity management will be incorporated and timely recovery will be a top priority.
18. Access and Participation Requirements: Avanti will have objective, risk-based, and publicly disclosed criteria for participation, which permits fair and open access among our target customer base, which includes businesses and sophisticated individuals only.
19. Tiered Participation Arrangements: Avanti will not permit tiered participation arrangements.
20. FMI Links: Any vendor, financial institution, or partner with which Avanti establishes a relationship will be monitored and managed through Avanti's vendor management program. In addition, Avanti intends to monitor the credit, fellow member and other risks associated with its participation in the financial market infrastructure as part of its overall risk management framework.

⁴² Jess Cheng, *How to Build a Stablecoin: Certainty, Finality, and Stability through Commercial Law Principles*, 17:2 Berkeley Bus. L.J. 320 (2020) at 333.

21. Efficiency and Effectiveness: Avanti will strive to be efficient and effective in meeting the requirements of its participants and the markets it serves.
22. Communication Procedures & Standards: When applicable, Avanti will use, or at a minimum accommodate, relevant internationally accepted communication procedures and standards in order to facilitate efficient payment, clearing, settlement, and recording. Avanti intends to utilize a core banking system that incorporates ACH and FedWire, and Avanti is exploring SWIFT capabilities.
23. Disclosure of Rules, Key Procedures, and Market Due Diligence: Avanti will have clear and concise disclosures for all products and services. For digital assets specifically, applicable Wyoming law and the rules of the Wyoming Division of Banking explicitly require such disclosures.⁴³ In all cases, Avanti intends to provide its customers with best-in-class disclosure, including relating to material risks associated with any product, as well as fees and costs associated therewith.
24. Disclosure of Market Data by Trade Repositories: Avanti does not anticipate engaging in any activity which requires the provision of data to any trade repository; therefore, this risk is not applicable.

Compliance with these standards will be accomplished by establishing a sound risk management framework. The framework will:

- Identify risks clearly and set sound risk management objectives;
- Establish sound governance arrangements to oversee the risk management framework;
- Establish clear and appropriate rules and procedures to carry out the risk-management objectives;
- Employ the resources necessary to achieve the systems risk-management objectives and implement effective rules and procedures.

Avanti's asset mix reduces the risk of an intra-day overdraft in its Master Account, but its charter type and digital asset business activities potentially bring uncertainty into the payment system which could be seen as higher risk exposure. Avanti would opt for a zero cap and would expect to be treated as an institution that faces excessive risk exposure. This would apply real-time monitoring to Avanti's Master Account and transactions would be rejected or delayed in the event they would cause a daylight overdraft.

In this scenario, risk will be mitigated in two ways. First, Avanti's conservative balance sheet will substantially reduce the risk of an intra-day overdraft. Second, the real time monitoring and zero cap structure of the Master Account will limit the Federal Reserve's exposure in the improbable event that an intra-day overdraft does occur.

There is an operational risk of failure of Avanti, which—because of the capital requirements applicable to the SPDI under Wyoming law—adds little to no risk to the payment system. As a non-lending bank, Avanti must invest 100% of the assets backing fiat deposits in liquid, risk-free assets which would be capable of being sold to, or assumed by, a traditional financial institution. In the event that an overdraft is caused by the insolvency of Avanti, the Wyoming Division of Banking will have the capital (pledged to it by Avanti, as required by Wyoming statute) sufficient to cover that overdraft as well as any resolution costs associated with its insolvency.

Operational Risk Management

Once Avanti has fully assessed its risk profile, Avanti intends to take a comprehensive approach to operational risk management and to integrate operational risk management within the overall enterprise risk management structure. The executive team will have primary responsibility for identifying and managing the risks inherent in Avanti's products, activities, processes and systems. Rather than focus on random, narrowly-focused audits, Avanti expects to utilize analytics to identify unusual or suspicious activity in real-time. Avanti's operational risk management program will address four broad areas: (i) employees; (ii) information technology; (iii) regulation; and (iv) organizational structure.

Avanti's executive team will ensure the identification and assessment of the operational risk inherent in all material products, activities, processes and systems to make sure the inherent risks and incentives are well understood. In addition, Avanti's executive team will ensure that there is an approval process for all new products, activities,

⁴³ Ch. 19, Wyo. Banking Div. R. (2019).

processes and systems that takes into account any associated operational risk. The operational risk policy will ensure that appropriate monitoring and reporting is in place, and that appropriate risk mitigation strategies are utilized.

Avanti's board of directors will establish, approve and periodically review the operational risk management program to ensure that it is implemented effectively.

4. Marketing Plan

Product Strategy

The products above can be broadly classified as payments (including both core banking and Avit), custody, or prime services. Below we outline each of these opportunities in more detail, highlighting Avanti's competitive advantages.

The Payments Opportunity

Avanti plans to offer delivery-versus-payment ("DvP")⁴⁴ services to customers, which enable the fiat and digital asset legs of transactions to settle simultaneously. With the traditional settlement of securities, DvP would involve the simultaneous delivery of documents in exchange for payment.⁴⁵ However, DvP is not currently available for transactions involving the U.S. dollar and digital assets, and therein lies Avanti's opportunity.

Avanti plans to solve two problems currently faced by parties to transactions involving both a digital asset and U.S. dollar payment: counterparty credit risk and the cost of delayed settlement (latency).

Avanti proposes to solve these problems with two products—escrow and Avit. The escrow transactions allow for internal settlement with no counterparty risk when both sides custody their assets at Avanti. Alternatively, customers can use Avit transactions in an "atomic swap" configuration (an atomic swap means two digital assets are traded and settled simultaneously, assuming the two assets were issued on the same blockchain or they can be exchanged across two interoperable blockchains via a cross-chain atomic swap). After the atomic swap, the owner of an Avit that is an Avanti customer can then transfer their Avit to Avanti custody and proceed to redeem it for U.S. dollars during normal banking hours. Any Avit holder that seeks to redeem an Avit must be an Avanti customer (and thus have successfully completed all applicable due diligence screening) in order to redeem Avit for U.S. dollars.

Both Avanti's escrow and Avit products solve the counterparty credit risk and latency problems faced by high -value traders of digital assets today.

- **How Avanti solves the latency problem for customers:** Avanti solves the latency problem by being able to settle the digital asset and payment legs of customer transactions simultaneously, within the same legal entity. This is not possible today, since no provider is able to provide both U.S. dollar payment and custody services within the same legal entity (*e.g.*, in a true bank)—which means settlement must happen at different times and in sequence, not simultaneously. Solving the latency problem would enable traders to achieve a goal commonly referred to as improved collateral velocity,⁴⁶ which means they would be able to trade more frequently with the same asset (and thereby potentially achieve higher returns) if that asset is not tied up in pending processes for transaction settlement. As explained in detail below, this is not possible today.
- **How Avanti solves the counterparty credit risk problem for customers:** Avanti solves the counterparty credit risk problem because it can offer simultaneous settlement of the digital asset and payment legs and —

⁴⁴ Delivery versus payment means the delivery of one asset/payment occurs only if delivery of the other asset/payment also occurs, so that the parties incur no settlement risk. Its corollary is receipt versus payment ("RvP"). *See, e.g.*, Federal Reserve Bank of New York, *Fedwire and National Settlement Services*, NEWYORKFED.ORG, <https://www.newyorkfed.org/aboutthefed/fedpoint/fed43.html> (last visited June 4, 2020).

⁴⁵ Committee on Payment and Settlement Systems, *Principles for Financial Market Infrastructures*, Bank for Int'l. Settlements (Apr. 2012), <https://www.bis.org/cpmi/publ/d101a.pdf>.

⁴⁶ *See generally* Manmohan Singh, *Velocity of Pledged Collateral*, Int'l Monetary Fund (Nov. 2011), <https://www.imf.org/external/pubs/ft/wp/2011/wp11256.pdf>.

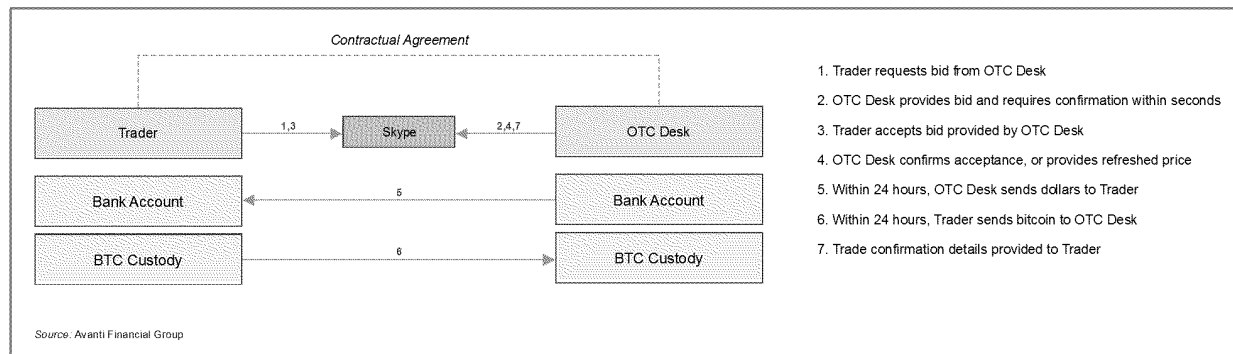
critically—it does so in a way that does not expose customers to risk of credit loss from a default in the same manner that a traditional bank does. Why? Because for digital assets, Avanti is merely a service provider, and for U.S. dollars Avanti must hold 100% reserves against its deposit liabilities. For digital assets, Avanti’s customer relationship is legally that of a bailment, which means the customer retains ownership of its asset and only gives Avanti temporary possession of it. Moreover, the prohibition against rehypothecation in Wyoming’s digital asset law⁴⁷ precludes Avanti from holding fewer assets than liabilities in its trust business.

To be clear, Avanti customers are still exposed to some incidental counterparty risk (as distinguished from counterparty credit risk) that could arise from an operational failure at Avanti. The same is true, of course, at traditional banks as well—where counterparty default could be caused by either credit risk or operational failure. Avanti’s business model solves the credit risk problem, but of course it is not possible to remove all operational risk. We believe the deep experience of Avanti’s team in digital assets better positions Avanti relative to traditional banks to understand and manage the risk of operational failure involving digital assets.

Neither Avanti’s escrow product nor anything directly comparable to Avit is available on the market today. Accordingly, customers transacting high-value digital asset transactions must create work-arounds to handle these problems today. Such work-arounds mitigate the counterparty credit risk problem, but by doing so they actually exacerbate the cost of latency.

Traditionally, high-value transactions involving digital assets are executed via OTC trading venues. Typically, these transactions have been carried out over Skype or a similar video conferencing service. Parties agree to a transaction price verbally, and then agree to settle the transaction within 24 hours by delivering the digital asset. To date, defaults have been rare and the existing markets work predominantly on trust (*i.e.*, if a party fails to deliver the digital asset, OTC traders will prefer not to do future business with that party).

Table 11: Diagram of Current OTC Process (trader selling bitcoin)



However, as experienced financial services professionals know, this strategy of trust works until it does not. The settlement risk involved in today’s OTC transactions for digital assets is a modern-day version of “Herstatt Risk,”⁴⁸ where timing differences in settlement cycles create counterparty credit risk, and the failure of one party to deliver⁴⁹ on its obligation can trigger a cascade of failures along a connected chain of counterparties. Moreover, “strategic” failures to deliver an asset that a party has contractually agreed to deliver—which traders can decide deliberately to do when the cost of delivering the asset exceeds the penalty from failing to deliver it—are common in financial asset trading.⁵⁰ We believe digital assets are no different in this regard. Sophisticated OTC traders understand these issues and are looking for solutions, which is where Avanti’s opportunity lies.

⁴⁷ Wyo. Stat. § 34-29-104(k) (2019).

⁴⁸ See, e.g., Business Dictionary, *Herstatt Risk*, BUSINESSDICTIONARY.COM, <https://www.businessdictionary.com/definition/Herstatt-risk.html> (last visited Jun. 4, 2020).

⁴⁹ See, e.g., Investopedia, *Failure to Deliver*, INVESTOPEDIA.COM, <https://www.investopedia.com/terms/f/failuretodeliiver.asp> (last visited Jun. 4, 2020).

⁵⁰ As an example, total U.S. Treasury and Agency failures to deliver have averaged nearly \$40 billion per day since March, according to DTCC data. See DTCC, *Daily Total U.S. Treasury and Agency Fails*, DTCC.COM, <https://www.dtcc.com/charts/daily-total-us-treasury-trade-fails> (last visited Jun. 4, 2020).

Avanti has had extensive conversations with large OTC traders, including Jump Trading, Cumberland DRW, Reciprocity Trading and others, and we are confident that our escrow and Avit solutions would be welcomed by key market participants because they solve the counterparty credit risk problem that all participants recognize as a high-severity problem when, eventually, it hits digital asset markets.

It is important to recognize that the counterparty credit risk problem is not solely related to delivery of the digital asset leg of transactions in the market today, but also exists on the U.S. dollar leg. Many high-value transactions in digital assets far exceed the per-depositor \$250,000 cap on FDIC insurance.⁵¹ Existing U.S. banks that provide U.S. dollar payment services to the digital asset industry have built proprietary payment solutions that enable the internal crossing of U.S. dollar payments between two existing customers of the bank on a 24/7 basis, but these banks cannot solve the counterparty credit risk problem in the same way Avanti can. Avanti does not face this same exposure because (1) as a non-lending bank that must hold reserves backing 100% of its deposit obligations, customer deposits are protected even if they exceed the FDIC-insured limit, and (2) other banks do not have the ability to custody or transfer the digital leg of the transaction, thereby requiring the multiple parties to settle the legs of transactions in sequence instead of on a DvP basis. In the digital asset industry, OTC traders have expressed significant interest in doing business with Avanti for this reason.

Only three banks currently provide the vast majority of payment services to the digital asset industry in the US: [REDACTED] Signature⁵³ and Metropolitan.⁵⁴ Most other U.S. banks have declined to service the digital asset industry due to heightened regulatory scrutiny, the need for experienced compliance teams and strong tech teams, uncertainty in most U.S. states regarding the legal enforceability of certain digital asset transactions, and general uncertainty regarding digital assets and financial regulation (specifically, whether they are commodities, securities or property).

Traditional banking institutions have encountered legal and regulatory uncertainty with respect to their ability to provide custody services for digital assets, providing an opportunity for Avanti to capture the space in the market and assure commercial profitability for its operations.

Therein lies Avanti's opportunity to capture a decent share of the existing payment market within digital assets, which is more than \$3 billion currently (see Table 12, which shows the amount of U.S. dollars on deposit at each of these three banks, as of 12/31/19):

Table 12: U.S. Dollar Deposits at Digital Asset-Friendly Banks^{55 56 57}

Name	Headquarters	Total Deposits	Digital Asset Customer Deposits
[REDACTED] Bank	La Jolla, California	\$1.8 billion	\$1.2 billion
Signature Bank	New York, New York	\$40.4 billion	\$2.0 billion
Metropolitan Commercial Bank	New York, New York	\$2.8 billion	\$104.2 million

⁵¹ For example, the average OTC trade on Circle was around \$2 million in 2018. See Sead Fadilpašić, *Average OTC Trade on Circle Was Around USD 2m in 2018*, CYRPTONEWS.COM (Jan. 4, 2019), <https://cryptonews.com/news/-3158>.

⁵² See generally [REDACTED]; [REDACTED] <https://www.silvergatebank.com/> (last visited Jun. 4, 2020).

⁵³ See generally Signature Bank, SIGNATURENY.COM, <https://www.signatureny.com/> (last visited Jun. 4, 2020).

⁵⁴ See generally Metropolitan Bank Holding Corp., METROPOLITANBANKNY.COM, <https://metropolitanbankny.com/> (last visited Jun. 4, 2020).

⁵⁵ See [REDACTED] Bank Annual Report (Form 10-K) (Mar. 10, 2020).

⁵⁶ See Signature Bank Annual Report (Form 10-K) (Mar. 28, 2020).

⁵⁷ See Metropolitan Bank Holding Corp. Annual Report (Form 10-K) (Mar. 9, 2020).

But perhaps the biggest payment opportunity for Avanti lies in disrupting the current “stablecoin” ecosystem. Avanti’s proposed Avit is not a stablecoin⁵⁸—it is an electronic “transferable record” (pursuant to UETA) that can be endorsed to a new payee and is redeemable at Avanti by the most recent payee.

For a more complete discussion of the Avit product, please see Appendix A.

Stablecoins are programmable tokens that track fiat currencies and can be used by (1) traders wishing to settle the payment leg of transactions in real-time for transactions that involve securities, real estate or digital assets, and (2) businesses (including corporate treasurers) wishing to move money quickly and with minimal cost, delays, counterparty credit risk and with settlement finality.

The market for stablecoins is big and growing rapidly—now at more than \$10 billion, up over \$5 billion from the beginning of 2020, per Messari’s Stablecoin Index.⁵⁹ And, as indicated in Table 13, below, they are trading more frequently. Many stablecoins trade multiples of their outstanding value on a daily basis.

Table 13: Stablecoin Facts and Figures^{60 61}

Stablecoin	Last 7-day Avg. Daily Volume	Outstanding (as of 6/7/20)	Regulatory Structure	Target Market
Tether	\$27.9 billion	\$9.22 billion	Unregulated	Mostly Retail
USDC	\$292.7 million	\$736 million	NY trust company	Institutional
[REDACTED] Standard	\$166.1 million	\$247 million	NY trust company	Institutional
True USD	\$92.9 million	\$137 million	Partner w/ NV trust company	Institutional

Avanti would have four primary competitive advantages relative to incumbent stablecoins, which is why we believe Avit can disrupt the current stablecoin ecosystem.

First, as a regulated bank, Avanti would issue Avits as a “transferable record” under UETA, thereby providing it with substantially the same legal protections as a negotiable instrument.⁶² Second, an Avit may (pursuant to guidance from the FASB) be accounted for as a cash-equivalent under U.S. GAAP. Third, as the equivalent of a historic bank note, an Avit is likely to be treated as a bank deposit by the IRS, rather than as property, which is the treatment for incumbent stablecoins and which triggers capital gain/loss reporting requirements for tax purposes. Finally, as a regulated, audited, 100% reserve bank that plans to deposit its cash directly at the Federal Reserve, Avanti expects to be a novel solution in this space and the only one of its kind with regulator-enforced proof of solvency.

The Custody Opportunity

Several companies currently provide custody services for digital assets in the U.S. However, currently, none has a bank charter; each such company has either a trust company charter and/or is licensed as a money transmitter in each state in which it does business:

⁵⁸ “Stablecoins” are defined as digital assets whose value is pegged to the value of another asset. Some are collateralized (backed by a pool of the asset whose value they’re designed to mimic) and others are algorithmic (where an algorithm adjusts the supply up or down to maintain a target value). See, e.g., Connor Blenkinsop, *Stablecoins Explained*, COINTELEGRAPH.COM (Apr. 30, 2019), <https://cointelegraph.com/explained/stablecoins-explained>.

⁵⁹ See Messari’s Stablecoin Index, *Market Capitalization*, STABLECOININDEX.COM (last visited Jun. 7, 2020), <https://stablecoinindex.com/marketcap>.

⁶⁰ See CoinMarketCap, *Monthly Volume Rankings*, COINMARKETCAP.COM (last visited Jun. 7, 2020), <https://coinmarketcap.com/currencies/volume/monthly/>.

⁶¹ See CoinMarketCap, *Market Capitalization Rankings*, COINMARKETCAP.COM (last visited Jun. 7, 2020), <https://coinmarketcap.com/>.

⁶² See UETA, *supra* note 8.

Confidential Treatment Requested

Table 14: Digital Asset Custody Competitors and Regulatory Structure^{63 64 65}

Name	2017		2018		2019		Regulatory Structure
	Regulated	Insured	Regulated	Insured	Regulated	Insured	
Kingdom Trust	X		X	X	X	X	South Dakota Trust Company
Gemini	X		X	X	X	X	New York Limited Purpose Trust Company
Coinbase Custody			X	X	X	X	New York Limited Purpose Trust Company
BitGo			X		X	X	South Dakota Trust Company
Fidelity Digital Assets					X	X	New York Limited Purpose Trust Company
[REDACTED]					X	X	South Dakota Trust Company
Bakkt					X	X	New York Limited Purpose Trust Company

Each of these companies has most or all of the following six structural disadvantages relative to Avanti, primarily as a result of regulatory issues.

First, none has the ability to clear dollar payments directly at the Federal Reserve, which means they (i) cannot offer products for near real-time gross settlement of payments, (ii) must rely on third parties for banking access, and, consequently, (iii) subject their customers to counterparty credit risk.

Second, none are subject to the high capitalization requirements of banks—in fact, some have capital of only a few hundred thousand dollars (compared to a statutory minimum of \$5 million for a Wyoming SPDI,⁶⁶ with a much higher capital requirement in practice).

Third, none of the above take deposits. Because Avanti will take dollar deposits, it clearly meets the SEC's definition of a "qualified custodian" under the SEC's Custody Rule⁶⁷ and Customer Protection Rule⁶⁸ (which requires that a qualified custodian either (1) take deposits of dollars, which trust companies cannot do or (2) provide fiduciary services).⁶⁹

Fourth, each company in this list is organized in a jurisdiction that lacks commercial laws designed with digital asset transactions in mind, which creates uncertainty for the company's investors and the users of its products. This is especially true of transactions involving self-custodied digital assets (which are typically "general intangibles" under the UCC, and therefore not subject to Article 8), outside of those subject to Wyoming law.⁷⁰

⁶³ See Bitwise Asset Management, *Presentation to the U.S. Securities and Exchange Commission* at 161 (Mar. 19, 2019), <https://www.sec.gov/comments/sr-nysearca-2019-01/smysearca201901-5164833-183434.pdf>.

⁶⁴ See Bakkt, *Bakkt Acquires Digital Asset Custody Company, Applies for NY Trust Company Status*, FINEXTRA.COM (Apr. 30, 2019), <https://www.finextra.com/pressarticle/78198/bakkt-acquires-digital-asset-custody-company-applies-for-ny-trust-company-status>.

⁶⁵ See Aislinn Keely, [REDACTED] *Subsidiary Receives Charter to Set Up 'Smart' Crypto Custody Shop in South Dakota*, THEBLOCKCRYPTO.COM (Jul. 16, 2019), <https://www.theblockcrypto.com/post/3> [REDACTED]

⁶⁶ Wyo. Stat. § 13-12-110(a) (2019).

⁶⁷ 17 C.F.R. § 275.206(4)-2 (2012).

⁶⁸ 17 C.F.R. § 240.15c3-3 (2019).

⁶⁹ See, e.g., 15 U.S.C. § 80b-2(a)(2) (2010); 17 C.F.R. 275.206(4)-2 (2012); and Comptroller of the Currency, *Controller's Handbook*, Office of the Comptroller of the Currency at 11, 14 (Jan. 2002), <https://occ.gov/publications-and-resources/publications/comptrollers-handbook/files/custody-services/pub-ch-custody-services.pdf>.

⁷⁰ See Nic Carter, *A Crypto Banking Reality Check*, BANKLESS, *supra* note 13.

Fifth, the resolution process for insolvent banks is clear (at least insofar as a resolution plan—which Wyoming SPDIs are required to have—provides clarity),⁷¹ while the resolution process for insolvent trust companies is far from clear.⁷²

Finally, the legal terms capable of being offered by virtually all companies on this list fall short of expectations of institutional investors. This, together with the relative lack of clarity for investor assets subject to a trust company bankruptcy, has made the asset class inaccessible to many fiduciary asset managers to date. The term “institutional custody” is widely used and marketed by digital asset custodians, but the legal documentation produced by many of these firms does not demonstrate the ability to meet the requirements of fiduciary institutional investors.⁷³ Avanti believes that it is able to do so.

Avanti has three key competitive advantages relative to these competitors: (1) a superior regulatory solution that solves the six structural disadvantages; (2) a tech team that has experience building the only two crypto custody platforms that began from inception as regulated platforms (LedgerX and Fidelity), rather than as unregulated platforms that later became regulated⁷⁴; and (3) Avanti plans to bring new product solutions to the digital asset market that do not currently exist, such as timelocks, institutional multi-signature, and device-verified transaction authorization appropriate for institutional audit trail standards.

Accordingly, Avanti has the opportunity not only to capitalize on the shortcomings of current offerings in the market to capture an outsized share of the existing custody market, but also to expand the market by enabling “traditional asset owners” (pensions, endowments, foundations, sovereign wealth funds) to invest in digital assets. Lack of an institutional-grade custodian is one of the big reasons why such investors have not yet invested in the asset class, as KPMG described in its March 2020 report about institutional custody of digital assets.⁷⁵

The Prime Services Opportunity

There are several ways to service digital asset investors and traders, but the majority of these customers execute transactions through exchanges⁷⁶ or OTC liquidity providers.⁷⁷ Accordingly, because Avanti is not an exchange, trader or liquidity provider, we will build a network of relationships with firms in all three categories (after completion of appropriate compliance due diligence).

The typical differentiator in digital asset trading markets is the average transaction size, based on the direct prior trading experience of Avanti employees and our recent conversations with OTC traders. Larger transactions (usually above \$50,000) are handled by OTC trading firms. Exchanges, on the other hand, largely deal with retail customers, and handle a larger volume of smaller trades than do OTC trading firms. Although large transactions sometimes take

⁷¹ See Chapter 20, *supra* note 14, § 4. Resolution plans under Wyoming law are focused on how the Wyoming Division of Banking would conduct an orderly liquidation or transfer assets to a different custodian.

⁷² Liquidations of trust companies are rare but, because they often rely on local insolvency regimes with little history of handling complex matters, can be lengthy and expensive processes. One example is that of the Noble Trust Company, a New Hampshire trust company whose insolvency proceedings began in April 2008 and ended with liquidation in May 2019. See New Hampshire Banking Department, *Noble Trust Liquidation Information*, NH.GOV, <https://www.nh.gov/banking/noble-trust/> (last visited Jun. 4, 2020).

⁷³ See generally LedgerX, *Rulebook*, LEDGERX.COM (July 9, 2019), <https://www.ledgerx.com/s/LedgerX%20LLC%20Rulebook-7-9-2019.pdf>; see also For example, the sponsor of USDC (a stablecoin marketed to institutional investors) contains the following warning: “*The regulatory status of USDC and blockchain technology is unclear or unsettled in many jurisdictions. It is difficult to predict how or whether regulatory agencies may apply existing regulation with respect to USDC, blockchain technology and its applications. Accordingly, it is not possible to determine whether a USDC transfer would be recognized under applicable law by a court or regulator at the U.S. state, U.S. federal, or international level.*” See, e.g., Circle USDC User Agreement (Dec. 9, 2019), <https://support.usdc.circle.com/hc/en-us/articles/360001233386-Circle-USDC-User-Agreement>.

⁷⁴ To our knowledge, while not directly comparable, neither LedgerX nor Fidelity has suffered a cybersecurity incident or has otherwise been compromised to date.

⁷⁵ See KPMG, *Cracking Crypto Currency*, KPMG LLC (2020), <https://advisory.kpmg.us/content/dam/advisory/en/pdfs/2020/kpmg-cracking-crypto-currency.pdf>.

⁷⁶ Examples of exchanges include [REDACTED] Coinbase, Gemini, [REDACTED] Bittrex and many others based outside the U.S.

⁷⁷ Examples of OTC trading desks based in the U.S. include Jump Trading, Cumberland DRW, Reciprocity Trading, [REDACTED] OTC and others.

place on an exchange, a trader is more likely to experience price slippage due to the increased volume. OTC desks—where price slippage is generally not an issue—are the go-to option for larger institutional traders.

To give perspective on transaction volume, Bloomberg reported in 2018⁷⁸ that the daily volume of digital assets traded OTC ranged from \$250 million and \$30 billion per day, compared to only \$15 billion for exchanges. These volumes have increased markedly in recent months, as we will explain below. Although volume estimates widely vary, market participants generally agree that daily OTC volumes for digital assets are much larger than exchange volumes.⁷⁹

The mechanics for trade facilitation also differ between these two types of market participants. With typical exchange processes, all collateral must be posted prior to the initiation and subsequent execution of a transaction. This allows for a quick settlement as there is no wait for a counterparty to deliver on their leg of a trade, since the exchange facilitates it in real-time. In order to be able to execute quickly, however, digital assets must be kept in “hot” wallets, where private keys are exposed to the internet and thereby face increased risk of a cybersecurity incident. *CoinDesk* reported that seven digital asset exchanges were compromised in 2019 alone, with over \$100 million in lost value.⁸⁰

For security reasons, OTC traders typically keep digital assets in “cold” storage (*i.e.*, private keys are not exposed to the internet), thereby reducing the risk of cybersecurity incidents that have penetrated many of the digital asset exchanges. Although cyber risk is minimized, this structure introduces a large amount of counterparty credit risk due to delayed settlement of transactions. Since the private keys are stored offline, companies are required to conduct a signing process, typically requiring a quorum of humans to act in concert in order to initiate a transaction from “cold” storage. This structure has forced OTC trading parties to allow for extended settlement windows, with some large liquidity providers allowing up to a 24 hour window.⁸¹ In practice, these transactions are usually governed by contractual agreements, but a liquidity crunch or strategic failure to deliver will create an unexpected ripple effect of broken trades and defaults along a chain of counterparties. Although this structure is currently accepted by the market, it is largely as a matter of trust—and all participants recognize the Herstatt risk⁸² inherent in the market. Many have been exploring alternate settlement options with the use of pre-funding or escrow.

One way that market participants are trying to solve these problems is to use pre-funded accounts, in which OTC providers require customers to post a certain level of dollar collateral to reduce the probability of default. Although a less risky transaction, pre-funded dollar accounts only solve one leg of the trade and do not guarantee the delivery of digital assets. Additionally, these account structures trap customer capital, which is another reason they have not been broadly adopted by the market. In order to truly solve for settlement risk, both legs of a trade need to be addressed. There have been technology-enabled solutions proposed, such as “atomic swaps” (which automatically facilitate bilateral trading of digital assets). For example, a bitcoin/ether atomic swap would allow two parties to trade a certain number of bitcoin for a certain number of ether. Both parties would agree to a “contract”, which in this case is reflected by code. The bitcoin seller would send bitcoin to a predetermined address, while the other party would send ether. Once both transactions are received and confirmed, the bitcoin seller would receive ether, with the other party receiving bitcoin. If one party decided not to send collateral to the predetermined address, the trade would not settle, thus solving for default risk. Although a compelling solution, atomic swaps have yet to see broad adoption, largely because (i) they cannot solve problems for trades that involve fiat and (ii) traditional institutions need to be able to face a legal counterparty rather than a smart contract or other blockchain address.

Another way to solve these problems is escrow. Avanti would have a unique opportunity to provide escrow services for the fiat and digital asset legs of a transaction because Avanti would effectively be able to provide an atomic swap-like solution within a regulated bank offering. Customers most concerned with counterparty credit risk could choose to settle a trade by escrow, where both sides would be required to post collateral in order for the transaction to settle. Furthermore, if both parties were Avanti customers, an instantaneous trade between fiat and digital assets could occur,

⁷⁸ Olga Kharif, *Institutional Investors are Using Back Door for Crypto Buys*, BLOOMBERG (Oct. 1, 2018), <https://www.bloomberg.com/news/articles/2018-10-01/institutional-investors-are-using-back-door-for-crypto>.

⁷⁹ Romal Almazo, *OTC Crypto Market At A Glance*, FINEXTRA (Feb. 6, 2019), <https://www.finextra.com/blogposting/16628/otc-crypto-market---at-a-glance>.

⁸⁰ John Biggs & Danny Nelson, *Upbit is the Seventh Major Crypto Exchange Hack of 2019*, COINDESK (Nov. 27, 2019), <https://www.coindesk.com/upbit-is-the-sixth-major-crypto-exchange-cybersecurity-incident-of-2019> [sic].

⁸¹ Cumberland has previously provided a 24-hour settlement window to Avanti executives when they worked at prior firms.

⁸² See Committee on Payment and Settlement Systems, *Principles for Financial Market Infrastructures*, *supra* note 43.

thereby eliminating the ability for institutions to strategically fail to deliver. As the digital asset industry matures, we believe the current settlement risk accepted by the market will no longer be tolerated and we anticipate the continued interest and broad adoption of escrow services.

Solving these intractable problems is Avanti's opportunity. Again, Avanti is not an exchange, trader or liquidity provider. But Avanti's regulatory structure, products and technology team can help solve these widely recognized problems in ways incumbents cannot.

Market Analysis

Target Market and Customer Profiles

Initially, Avanti expects to focus primarily on a subset of the broader digital asset market that includes:

1. **Institutional investors:** Pension funds, endowments, foundations, mutual funds, sovereign wealth funds, hedge funds, venture capital funds, private equity funds, family offices, and traditional asset managers, which are currently investing in digital assets or looking to gain exposure.
2. **Corporate treasurers:** Businesses looking to settle payments with less latency and counterparty credit risk relative to existing alternatives.
3. **Digital asset exchanges:** Exchanges through which digital assets are bought and sold; includes OTC trading desks.
4. **High net-worth individuals:** Qualified individuals looking for a secure, regulated custody solution.
5. **Other customers:** Companies with digital assets on the balance sheet looking for a secure, regulated custody solution.

From a demographic standpoint, these customers will likely fit one of the following profiles:

1. **Current users/customers of exchanges that also use exchanges as custodians:** Approximately 20-25% of the top two cryptocurrency tokens by market capitalization, bitcoin and ether, are held in custodial wallets at various exchanges and custodians rather than held directly in self-custody by owners.⁸³ With a combined market capitalization for bitcoin and ether of approximately \$207 billion as of June 6, 2020, this represents around \$47 billion in U.S. dollar value held in custody.⁸⁴

Digital asset exchanges provide both exchange and custodial services but are not regulated under a unified regulatory standard in the U.S. They typically apply for state money transmitter licenses and register as a money services business with FinCEN. None are currently regulated as deposit-taking institutions, nor do they provide the legal protection for their customers or clear resolution in insolvency scenarios that Avanti offers. Avanti is not an exchange but will integrate with exchanges and liquidity providers that pass our compliance and business requirements. We believe that institutional investors looking for enhanced legal protections and a clear regulatory framework—especially those subject to high fiduciary standards—would gravitate towards Avanti as a provider of those benefits.

⁸³ See Nic Carter, *A Crypto Banking Reality Check*, BANKLESS, <https://bankless.substack.com/p/a-crypto-banking-reality-check> (last visited Jun. 4, 2020).

⁸⁴ See, e.g., CoinMarketCap, *Top 100 Cryptocurrencies by Market Capitalization*, COINMARKETCAP.COM, <https://coinmarketcap.com/> (last visited Jun. 6, 2020).

Table 15: Digital Asset Exchanges: U.S. Regulatory Structure⁸⁵

Exchange	MSB	BitLicense
Binance		
Bitfinex	X	
bitFlyer	X	X
Bitstamp	X	
Bittrex	X	
Coinbase Pro	X	X
Gemini	X	X
itBit	X	X
[REDACTED]	X	
Poloniex	X	X

Note: MSB = registered with FinCEN as a money services business. BitLicense = New York's special license for digital asset service providers, which imposes higher capital and regulatory compliance requirements than a state money transmitter license but generally less restrictive requirements than a trust company.

2. **Current users/customers of digital asset custodians:** If a customer does not feel comfortable holding digital assets on an exchange today, a serviced cold-storage custody solution provides enhanced security protection and additional regulatory clarity. Typical customers of cold storage digital asset custodians include hedge funds, private equity firms, and small to mid-size asset managers. Avanti's SPDI charter would likely attract a portion of these customers that are looking for protections beyond those provided by a typical trust company, including better legal protections and superior status in the event of insolvency (via bailment, the living will requirement and the requirement under Wyoming law to provide specified customer protections in customer agreements). For example, Wyoming law requires specific disclosure for specific distributions of value called "forks" and "airdrops", which are loosely analogous to stock dividends on digital assets. In one case, Wyoming law requires the custodian to obtain prior customer consent for a particular type of fork that changes the fundamental contract term.⁸⁶ By contrast, today's custodians almost always offer one-sided contracts that give the custodian sole discretion over forks and airdrops—including the right to keep such value without paying any of it to customers. This would be akin to a securities custodian, for example, demanding voting control over a corporate restructuring instead of the mutual fund manager rightly retaining that fiduciary voting responsibility—something that would never be tolerated in the securities industry, but which is standard practice for the digital asset industry. As a Wyoming SPDI, Avanti's customer agreement will be institutional quality from inception because that is the standard required by Wyoming law.
3. **Current users/customers of cold storage hardware devices:** Users that do not fall into one of the first two groups would likely maintain their cryptocurrency holdings on personal hardware wallet devices, such as a Ledger⁸⁷ or Trezor.⁸⁸ Users that are not strictly cost-driven and are looking for enhanced security features (e.g., multi-signature) will likely be drawn to Avanti's robust custody service offering.

⁸⁵ See Bitwise Asset Management, *Presentation to the U.S. Securities and Exchange Commission* at 161, SEC.GOV (Mar. 19, 2019), <https://www.sec.gov/comments/sr-nysearca-2019-01/srnysearca201901-5164833-183434.pdf>.

⁸⁶ See Chapter 19, *supra* note 5, § 5(e).

⁸⁷ See ledger, LEDGER.COM, <https://www.ledger.com/> (last visited Jun. 4, 2020).

⁸⁸ See trezor, TREZOR.IO, <https://trezor.io/> (last visited Jun. 4, 2020).

4. **New institutional users/customers of custodial wallets:** Institutions that have been waiting on the sidelines due to a lack of an institutional-quality custodian will likely be attracted by Avanti's superior regulatory protections.

An example of how Avanti will help address current inefficiencies in the market is that of Ripple co-founder Chris Larsen and his wife Lyna Lam, who in the fall of 2018 pledged to donate \$25 million in appreciated digital asset XRP to his alma mater, San Francisco State University.⁸⁹ More than a year later—primarily as a result of the inability of the university endowment to legally directly accept digital assets—the university finally received the cash proceeds, which fell far short of the initial \$25 million pledge (before Larsen and Lam and subsequently agreed to top-up the gift).

This example highlights four practical problems that university endowments (and many other funds subject to the regulation of the Investment Company Act and/or the Investment Advisers Act) face when accepting donations of digital assets:

- Universities are not set up operationally to take custody of bearer assets. They use third-party custodians (such as State Street or Bank of New York Mellon), which themselves are also not set up to take custody of digital assets. As a result, universities must find a qualified custodian that meets their institutional fiduciary standards. Unfortunately, in the U.S., it is not clear that such a custodian exists.
- The U.S. GAAP accounting treatment of many digital assets is not yet clear.
- Endowments are not comfortable with valuing the digital assets themselves.
- Traditional asset custodians are not integrated with digital asset custodians for financial reporting purposes.

In the case of the San Francisco State University example,⁹⁰ the university went outside of the U.S. to find service providers. It eventually contracted with a liquidity provider based in Hong Kong (GSR) and a single cryptocurrency exchange based in Luxembourg (Bitstamp) to liquidate the donated XRP and deliver U.S. dollars to the university—more than a year after the donation was made.

GSR first established a “cold wallet” for the university to accept the donation, then transferred the XRP on a pre-agreed schedule to a “hot wallet” for its sale on multiple cryptocurrency exchanges. The sale proceeds were then transferred to and aggregated in the university's account at Bitstamp in Luxembourg, which then transferred U.S. dollars to the university's bank account in the U.S.

This structure used by San Francisco State was not only slow and expensive, but it also entailed many hidden risks:

- GSR was a counterparty to the university. The creditworthiness of GSR was unknown and unknowable to the university, because GSR was not, to our knowledge, audited, regulated or insured.
- Bitstamp was also the university's counterparty. Similarly, the creditworthiness of Bitstamp was unknown and unknowable, for the same reasons.
- The university's accounting for the donation was complicated. It booked the initial donation of unliquidated XRP as a pledge, and then processed proceeds from the sale at net value as U.S. dollar payments came in. The donation was initially recorded on the university's financial statements as an intangible capital asset at fair market value, and also as a deferred inflow of resources under liability.⁹¹

The \$19.6 million of proceeds⁹² that the university received from the donation of XRP fell far short of the initial \$25 million pledge. Time, a market correction and the wide bid-offer spreads commanded by multiple intermediaries had eroded the value of the initial donation so much that the donor agreed to make an additional donation of 9 million XRP to make the original gift value whole.⁹³

⁸⁹ Hannah Norman, *Ripple Co-Founder Donates \$25m to SF State—All in Cryptocurrency*, SF BUS. TIMES (Apr. 5, 2019), <https://www.bizjournals.com/sanfrancisco/news/2019/04/05/ripple-co-founder-donates-25m-to-sf-state>.

⁹⁰ Robert J. Nava & Vanesia Thompson-Ramsay, *A Brave New World: Cryptocurrency and 21st Century Philanthropy*, ASS'N OF GOVERNING BOARDS OF U. AND C. (Nov. - Dec. 2019) (“A Brave New World”), <https://agb.org/trusteeship-article/a-brave-new-world-cryptocurrency-and-21st-century-philanthropy/>.

⁹¹ Information shared with Avanti executives by a university endowment that studied the San Francisco State donation.

⁹² See *A Brave New World*, *supra* note 73.

⁹³ *Id.*

In a post-mortem published in the November/December 2019 issue of AGB, a university endowment trade publication, the San Francisco State staff provided the following advice to university endowment managers: “[b]egin establishing an infrastructure so that if you were to receive a gift of cryptocurrency, you are able to accept and liquidate the gift in a timely manner.”⁹⁴

Avanti’s custody solutions are designed to solve these very problems. As an institutional custodian that plans to be audited, regulated and insured, and that can handle the accounting and valuation challenges San Francisco State faced, Avanti’s products are designed to enable America’s universities and other non-profits to accept gifts in the form of digital assets⁹⁵ in a much simpler, more efficient and safer manner: as a “qualified custodian”, Avanti would be able to custody such assets in bailment, as described in detail above.

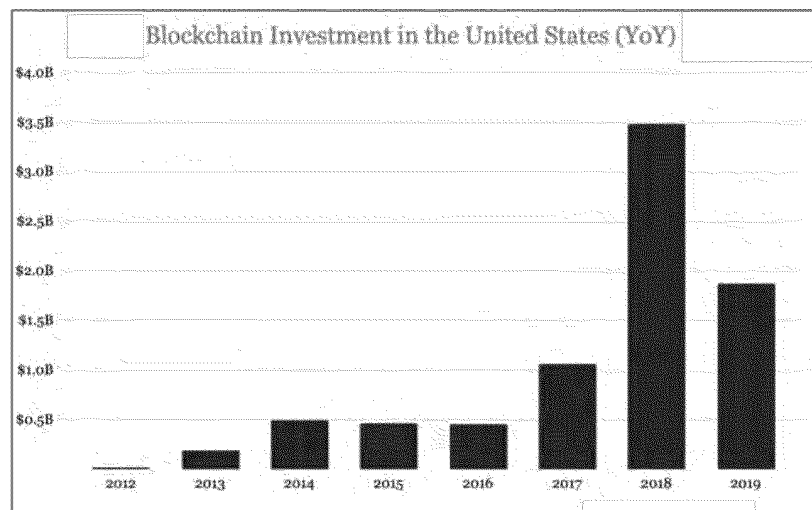
Geographical Market Areas

Avanti plans initially to focus its efforts on the U.S. market, but may in the future look to expand to additional jurisdictions—but always in line with Avanti’s “security AND compliance first” ethos. In addition, Avanti plans to incorporate foreign exchange services into its suite of core offerings, albeit after launch.

Additional benefits to focusing on the U.S. market at launch include:

- Exposure to a well-funded ecosystem of digital asset businesses (from 2015 to 2019, U.S. companies enjoyed a 51% share of all investments in the space; Chinese companies placed a distant second with 18% of the total).⁹⁶
- The ability to serve a large number of U.S. institutions that have not yet entered the market but would be inclined to do so if given an optimal regulatory-compliant gateway.
- The opportunity to leverage our US-centric regulatory framework.

Table 16: Blockchain Investment in the U.S., 2012-2019⁹⁷



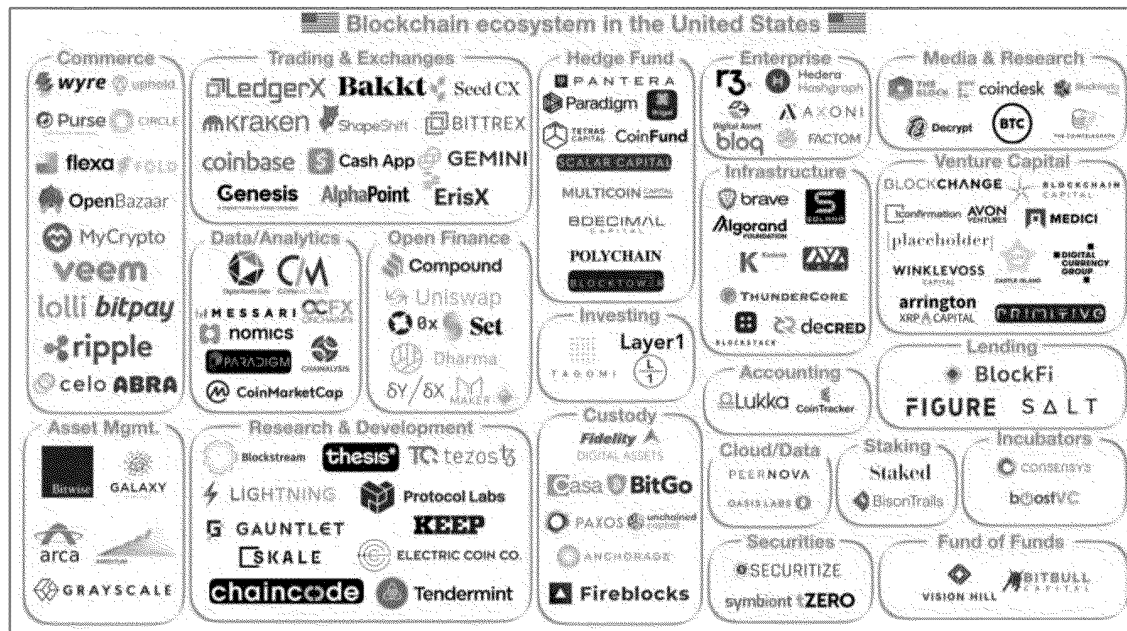
⁹⁴ *Id.*

⁹⁵ The University of Wyoming (“UW”) Foundation was the lead investor in Avanti’s angel round, which was announced June 2, 2020. Its chief investment officer commented, “UW has already benefited significantly from cryptocurrency donations but we have faced real logistical challenges in accepting them. We are confident Avanti can simplify and streamline the process for donors making it easier to raise even more money to support UW’s blockchain efforts, including our WyoHackathon, which have already gained UW worldwide recognition.” See Avanti, *Avanti Financial Group Closes Funding Round, Positioning It For Bank Charter Application Process*, AVANTIBANK.COM (Jun. 2, 2020), <https://avantibank.com/angel-round/>.

⁹⁶ See CB Insights, *The Blockchain Report 2020*, CBINSIGHTS.COM, <https://www.cbinsights.com/research/report/blockchain-report-2020/> (last visited Jun. 4, 2020).

⁹⁷ John Dantoni, *Mapping Out the Blockchain Ecosystem in the United States*, THEBLOCKCRYPTO.COM (Feb 5, 2020), <https://www.theblockcrypto.com/genesis/54947/>.

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Table 17: Blockchain Investment in the U.S., 2012-2019⁹⁸

Although Avanti will not focus initial efforts on expanding operations internationally, we will accept and welcome international customers so long as they pass necessary due diligence requirements. Digital assets are global in nature, with large amounts of activity currently outside the U.S.

Economic Analysis

Relevant Economic Factors

The world is seeing interest rates at historic lows, and several sovereigns are now able to finance at negative interest rates. The recent COVID-19 pandemic has further depressed interest rates,⁹⁹ with the current effective federal funds rate¹⁰⁰ sitting at just 0.06% as of June 4, 2020, down from 2.38% just one year ago. This has caused banks to slash interest rates paid on deposits, with many institutions now offering zero or near-zero yields. The impacts have been felt in the traditional and digital asset markets.

Given the 100% reserve requirement of Avanti, we are closely watching U.S. Treasury bill yields and the Federal funds and related interest rates. We are modeling a 10 basis point interest income level in Avanti's financial projections, but any meaningful change in interest rates would impact Avanti's projected interest income (although, since Avanti has mostly a fee-based revenue model, interest rates would need to move materially for this line item to have a significant impact on Avanti's net income). If interest rates were to go negative, Avanti plans to pass on this cost to its customers and is designing its IT architecture to accommodate such a scenario.

Aside from the macro environment in the U.S., Avanti will watch a variety of digital asset statistics, which will provide insight into the strength of the market. As the vast majority of trading activity and institutional interest is tied to bitcoin rather than other digital assets, we will primarily focus on the bitcoin market. These factors include:

⁹⁸ *Id.*

⁹⁹ Board of Governors of the Federal Reserve System, *Decisions Regarding Monetary Policy Implementation*, FED. RESERVE (implementation note, Mar. 15, 2020), <https://www.federalreserve.gov/newsevents/pressreleases/monetary20200315a1.htm>.

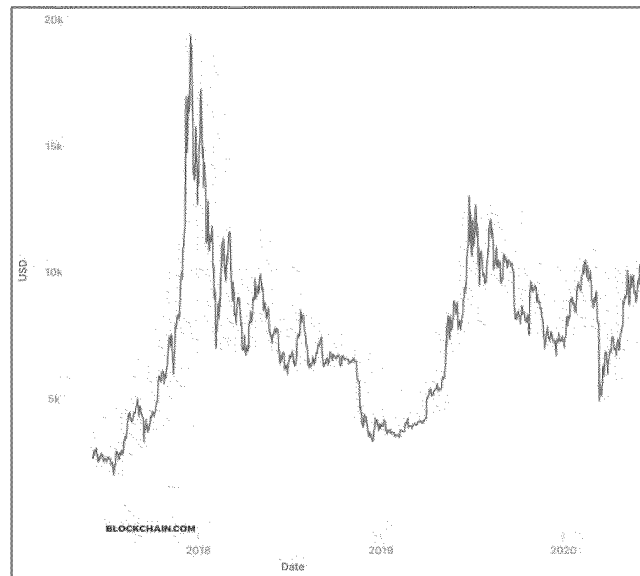
¹⁰⁰ See, e.g., Federal Reserve Bank of St. Louis, *Effective Federal Funds Rate*, FRED.STLOUISFED.ORG, <https://fred.stlouisfed.org/series/FEDFUNDS> (updated Jun. 4, 2020).

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Market Price of Bitcoin: The average USD market price across major bitcoin exchanges

- Generally speaking, an increasing price of bitcoin should lead to continued institutional adoption

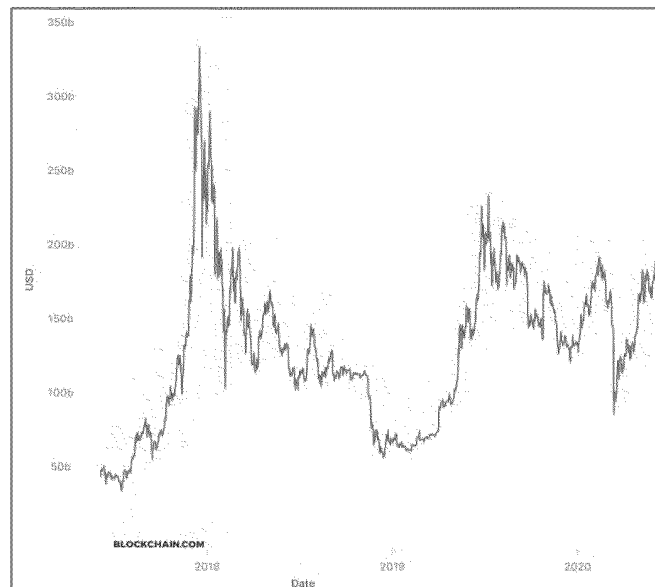
Table 18: Market Price of Bitcoin¹⁰¹



Market Capitalization of Bitcoin: The total USD value of bitcoin in circulation

- Institutions generally look for mature markets with deep liquidity. As the market capitalization grows, it becomes more attractive to large fund managers.

Table 19: Market Capitalization of Bitcoin¹⁰²



¹⁰¹ See Market Price, BLOCKCHAIN.COM, <https://www.blockchain.com/charts/market-price> (last visited May 31, 2020).

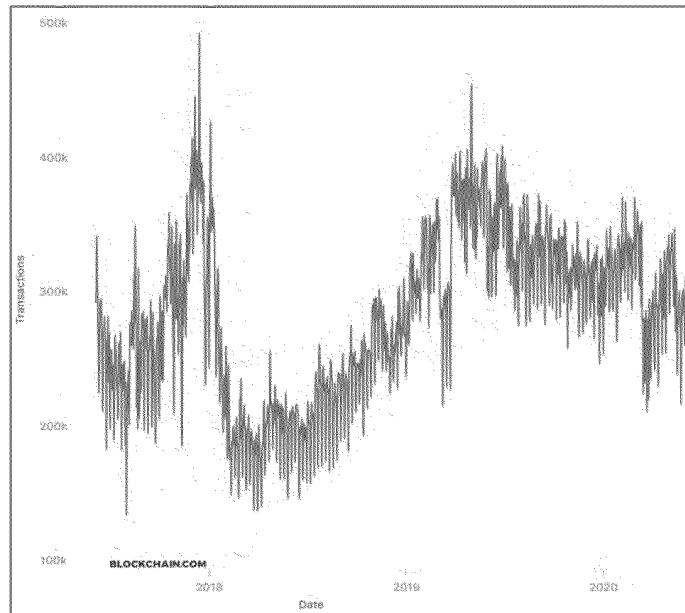
¹⁰² See Market Capitalization, BLOCKCHAIN.COM, <https://www.blockchain.com/charts/market-cap> (last visited May 31, 2020).

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Transactions Per Day: The aggregate number of confirmed transactions in the past 24 hours.

- Increasing transaction volume would result in higher revenues for Avanti

Table 20: Transactions Per Day¹⁰³

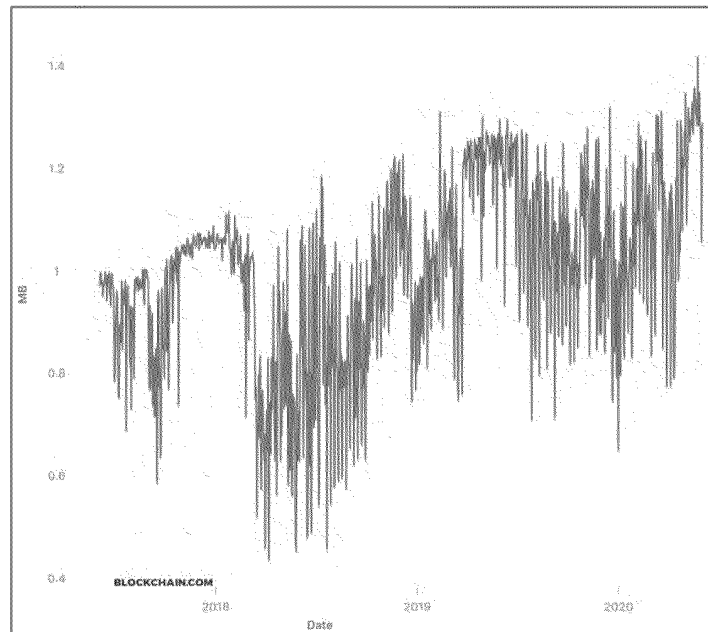


Average Block Size: The average block size over the past 24 hours in megabytes

- Proxy for network activity and growth.

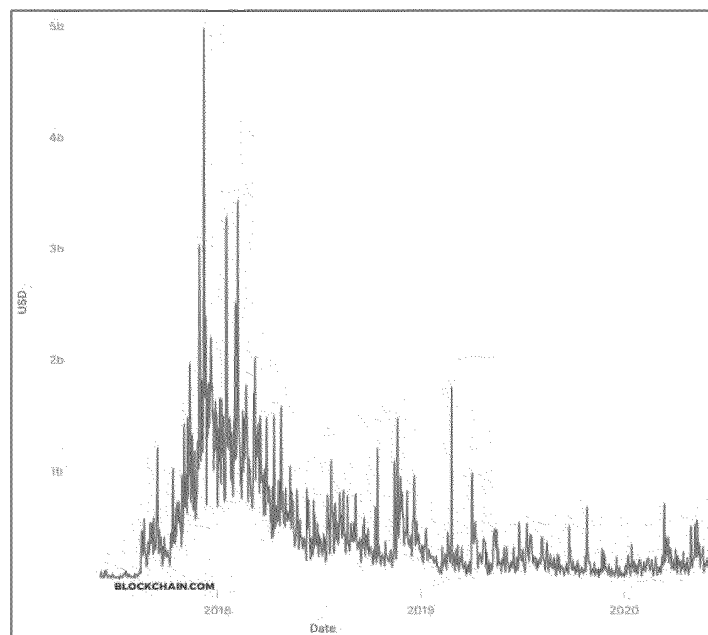
¹⁰³ See Number of Transactions, BLOCKCHAIN.COM, <https://www.blockchain.com/charts/n-transactions> (last visited May 31, 2020).

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Table 21: Average Block Size¹⁰⁴

Exchange Traded Volume: The total USD value of trading volume on major bitcoin exchanges

- Proxy for total bitcoin liquidity, an important factor for a healthy market.

Table 22: Exchange Traded Volume¹⁰⁵

¹⁰⁴ See Average Block Size, BLOCKCHAIN.COM, <https://www.blockchain.com/charts/avg-block-size> (last visited May 31, 2020).

¹⁰⁵ See Trade Volume, BLOCKCHAIN.COM, <https://www.blockchain.com/charts/trade-volume> (last visited May 31, 2020).

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Total Hash Rate: The estimated number of terahashes per second the Bitcoin network performs over 24 hours

- Hash rate is an indicator of the Bitcoin network's security, where a reduction in hash rate implies lower network security.

Table 23: Total Hash Rate¹⁰⁶

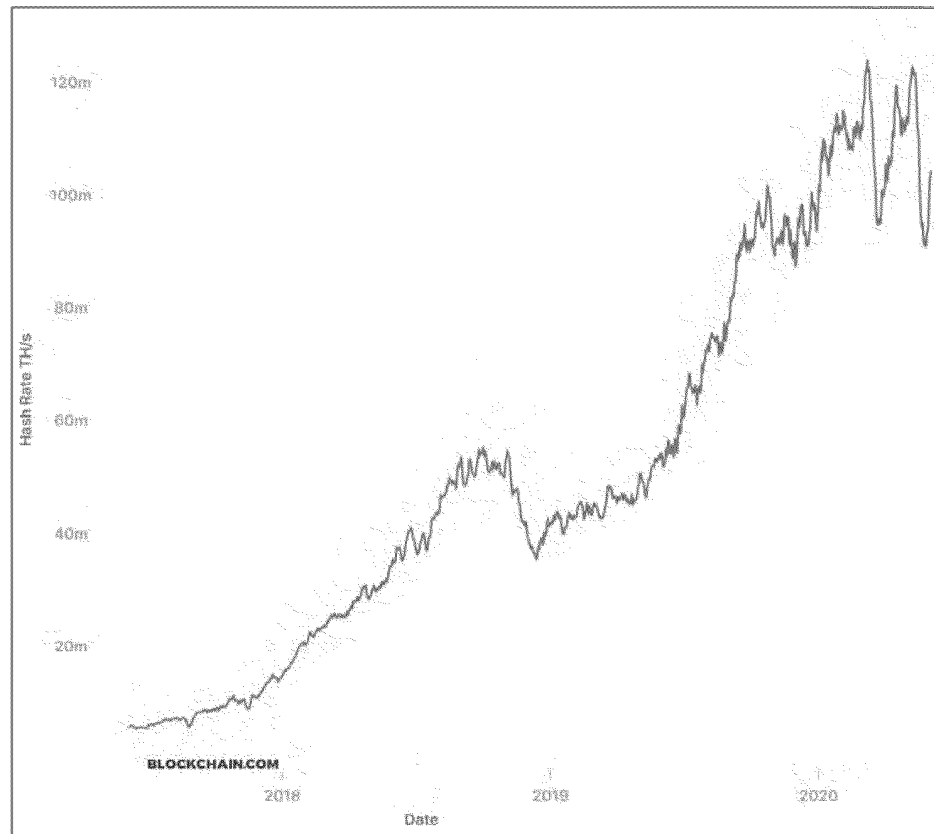


Table 24: Key Economic Factors Avanti Will Watch (as of May 31, 2020)^{107 108}

Effective federal funds rate	0.06%*
Market price of bitcoin	\$9,503.47
Market capitalization of bitcoin	\$175 billion
Transactions per day	255,666
Average block size (megabytes)	1.284
Exchange trade volume (major exchanges)	\$99.23 million
Total hash rate (hashes per second)	102.235 TH/s

*Effective federal funds rate as of June 4, 2020.

¹⁰⁶ See Total Hash Rate, BLOCKCHAIN.COM, <https://www.blockchain.com/charts/hash-rate> (last visited May 31, 2020).


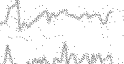
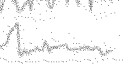
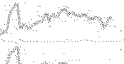

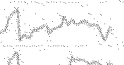

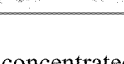
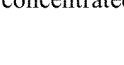
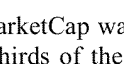
¹⁰⁷ See Federal Reserve Bank of New York, *Effective Federal Funds Rate*, NYFED.ORG (last updated Jun. 4, 2020), <https://apps.newyorkfed.org/markets/autorates/fed%20funds>.

¹⁰⁸ See Charts, BLOCKCHAIN.COM, <https://www.blockchain.com/charts> (last visited May 31, 2020).

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Market Analysis: Digital Assets

Table 25: Snapshot of Digital Asset Trading Market (as of June 7, 2020)¹⁰⁹

Cryptocurrencies		Exchanges	Watchlist	Prices		USD	USD 100	View All
Rank	Name	Market Cap	Price	Volume (24h)	Circulating Supply	Change (24h)	Price Graph (7d)	
1	Bitcoin	\$179,259,508,131	\$9,743.52	\$80,044,153,835	18,397,825 BTC	0.50%		
2	Ethereum	\$27,177,145,536	\$244.27	\$9,933,728,927	111,259,192 ETH	-0.51%		
3	Tether	\$9,197,730,576	\$1.02	\$39,979,403,494	9,197,991,663 USDT *	-0.04%		
4	XRP	\$8,963,312,305	\$0.203199	\$1,194,992,344	44,112,863,111 XRP *	-0.11%		
5	Bitcoin Cash	\$4,699,245,846	\$254.99	\$2,038,724,857	18,429,031 BCH	-0.09%		
6	Bitcoin SV	\$3,963,151,567	\$193.36	\$1,369,646,043	18,427,583 BSV	-0.84%		
7	Litecoin	\$3,031,552,992	\$46.71	\$2,892,843,647	64,907,560 LTC	0.03%		
8	Binance Coin	\$2,713,259,170	\$17.44	\$213,914,732	155,506,713 BNB *	-0.88%		
9	EOS	\$2,616,775,546	\$2.80	\$2,085,188,390	933,303,462 EOS *	0.38%		
10	Cardano	\$2,234,528,796	\$0.098166	\$291,470,027	25,927,070,539 ADA	-1.97%		

When compared to traditional capital markets, the market for digital assets is small, concentrated and volatile—but certain assets have surprisingly high daily turnover.

As of June 7, 2020, the total market value of all cryptocurrencies tracked by CoinMarketCap was \$276 billion, and 24-hour trading volume was nearly \$89 billion.¹¹⁰ Bitcoin represented nearly two-thirds of the total market value outstanding, while bitcoin and tether (a stablecoin¹¹¹ designed to track the value of the U.S. dollar) each represented roughly one-third of total value traded daily. On any given day, tether's daily trading value is regularly 3-4x its outstanding value. The five largest digital assets (bitcoin, ether, tether, xrp and bitcoin cash) account for roughly 85% of total outstanding market value.

In terms of market fluctuations, the value of the virtual currencies listed above in Table 26 (driven by bitcoin) boomed in 2017, increasing from a market value of \$18 billion in January 2017 to over \$800 billion in January 2018.¹¹² The market heavily corrected in 2018, with digital assets losing about 85% of their value by the end of the year.¹¹³ It somewhat rebounded in 2019, to about \$274 billion in July, 2019.¹¹⁴

The current market value of all listed virtual currencies is approximately \$250 billion,¹¹⁵ which is comparable to the market values of large corporations such as Nestle, Samsung, and Intel. Compared to other global financial markets, however, the digital asset market remains very small.¹¹⁶

¹⁰⁹ See Cryptocurrency Rankings, COINMARKETCAP.COM (Last visited Jun. 6, 2020), <https://coinmarketcap.com/>.

¹¹⁰ See CoinMarketCap, *supra* note 69.

¹¹¹ A stablecoin is a type of digital asset designed to minimize price volatility relative to some "stable" asset or basket of assets. This is achieved through a stabilization mechanism that serves to peg the price of the stablecoin to a more price-stable underlying asset such as the U.S. dollar or a basket of fiat currencies. See G7 Working Group on Stablecoins, *Investigating the Impact of Global Stablecoins*, BANK FOR INT'L SETTLEMENTS (Oct. 2019), <https://www.bis.org/cpmi/dl187.pdf>.

¹¹² See CoinMarketCap, *supra* note 69.

¹¹³ *Id.*

¹¹⁴ *Id.*

¹¹⁵ *Id.*

¹¹⁶ Global stock markets were valued at around \$80 trillion and global bond markets were valued at around \$246 trillion as of July 2019, from data presented to the U.S. Senate Committee on Banking, Housing, and Urban Affairs, <https://www.banking.senate.gov/download/nelson-testimony-7-30-19>.

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The economic characteristics of the digital asset market resemble those of a market economy, with supply and demand playing a key role in shaping trends around industry development, market participation, and investor sentiment for the asset class. The price performance of leading digital assets such as bitcoin and ether are a bellwether for the broader market. This is particularly true of bitcoin, which remains the most popular digital asset for retail and institutional investors alike—a key reason as to why Avanti has elected to tailor its initial product strategy to meeting institutional customer demand for bitcoin.

For reasons outlined below, bitcoin is widely viewed as the most investable digital asset in the market. As such, its performance is an integral part of the economics of the broader digital asset economy.

Market Demand: Bitcoin

The current digital asset market can be segmented into two main categories: bitcoin and other digital assets. With a market capitalization of \$179 billion,¹¹⁷ bitcoin has the largest market share. Bitcoin's market capitalization, coupled with its ability to absorb liquidity (from both within the market via like-kind trading against other digital assets and outside of it via trading against U.S. dollars and other fiat currencies), has made it an attractive "safe haven" for investors looking to weather periods of heightened volatility and uncertainty in the markets. As such, bitcoin has been able to outperform its peers on a consistent basis since the 2018 market correction, as shown by its cumulative performance against various digital asset market indices over the course of 2019.¹¹⁸

Table 26: Digital Asset Performance in 2019¹¹⁹



Bitcoin's outperformance in times of heightened volatility, as evidenced in Table 27, has helped to shape demand for the asset as a top option for investors looking to gain initial exposure to the asset class.¹²⁰ As the data below indicates, both retail and institutional investors often prefer to enter this market via bitcoin instead of other digital assets.¹²¹

In the first quarter of 2020, two major firms that deal in digital assets, Square and Grayscale, purchased a combined amount of bitcoin that is equivalent to more than half of all new bitcoin minted into existence ("mined") in the quarter (of ~163,800 bitcoin mined during this period, these firms purchased approximately 85,000 bitcoin, an amount worth

¹¹⁷ See CoinMarketCap, *supra* note 69.

¹¹⁸ See VanEck, *The Investment Case for Bitcoin*, <https://www.vaneck.com/globalassets/home/us/vaneck-digital-assets--the-investment-case-for-bitcoin.pdf>.

¹¹⁹ *Id.* at 15.

¹²⁰ See CoinMarketCap, *supra* note 69.

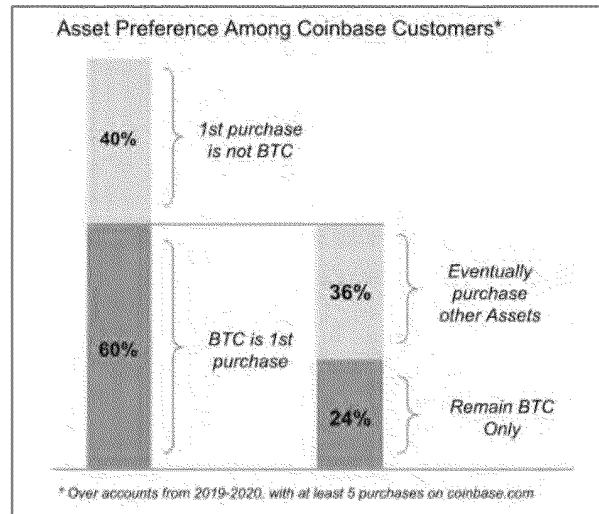
¹²¹ Yogita Khatri, *Most Bitcoin Investors on Coinbase End Up Buying Altcoins During Bull Runs, Says the Exchange*, THEBLOCKCRYPTO.COM (May 14, 2020), <https://www.theblockcrypto.com/post/65227/most-bitcoin-investors-on-coinbase-end-up-buying-altcoins-during-bull-runs-says-the-exchange>.

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\$695 million as of the end of the quarter).¹²² This is over double the amount they bought in the fourth quarter of 2019, when 23.14% of all bitcoin mined went to the aforementioned firms.¹²³

These facts suggest growing demand for bitcoin from not only the retail side of the market (in Square's case), but also from institutions (Grayscale is an institutional-focused digital asset investment fund). Note that both Square and Grayscale are potential customers of Avanti.

Table 27: Asset Performance Among Coinbase Users¹²⁴

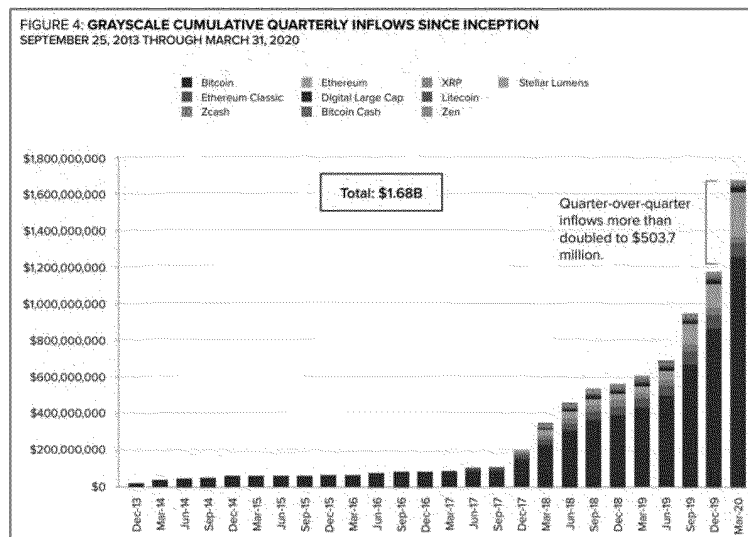


¹²² Stephen O'Neal, *Report: Square's Cashapp and Grayscale Consumed Over 50% of Bitcoin Mined Q1 2020*, COINTELEGRAPH.COM (May 7, 2020), <https://cointelegraph.com/news/report-squares-cashapp-and-grayscale-consumed-over-50-of-bitcoin-mined-q1-2020>.

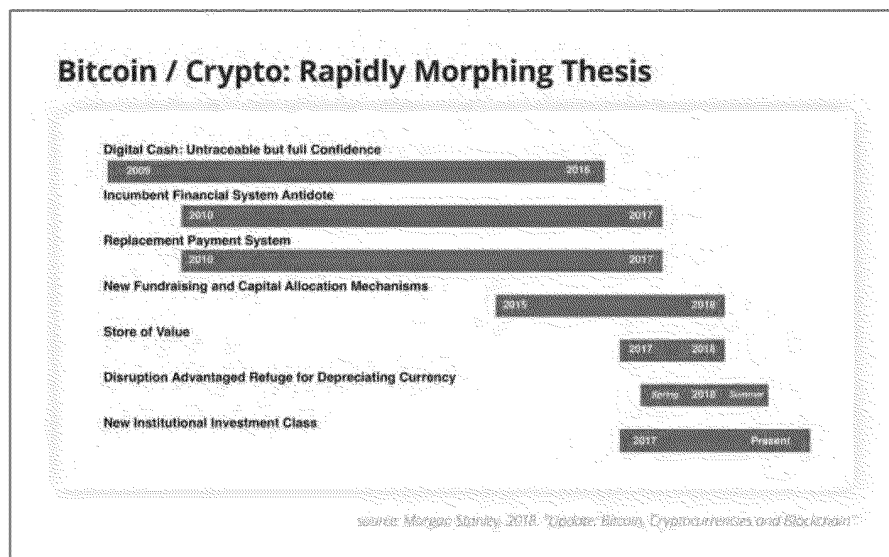
¹²³ Robert Stevens, *Cashapp and Grayscale took in 50% of all Bitcoin in Q1*, DECRYPT.CO (May 7, 2020), <https://decrypt.co/28032/cashapp-grayscale-bitcoin-purchase-2020>.

¹²⁴ Yogita Khatri, *Most Bitcoin Investors on Coinbase End Up Buying Altcoins During Bull Runs, Says the Exchange*, THEBLOCKCRYPTO.COM (May 14, 2020), <https://www.theblockcrypto.com/post/65227/investors-on-coinbase-end-up-buying-altcoins-during-bull-runs>.

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Table 28: Grayscale Quarterly Inflows, 2013-present¹²⁵

Investor preference for bitcoin is also driven by several other fundamental factors. First, bitcoin has a clear regulatory status in the U.S.—it was recognized as a commodity in 2015 by the U.S. Commodity Futures Trading Commission.¹²⁶ Second, various investment theses have taken shape over the years, with the most recent mainstream narrative focusing on bitcoin's status as a new institutional investment class.¹²⁷

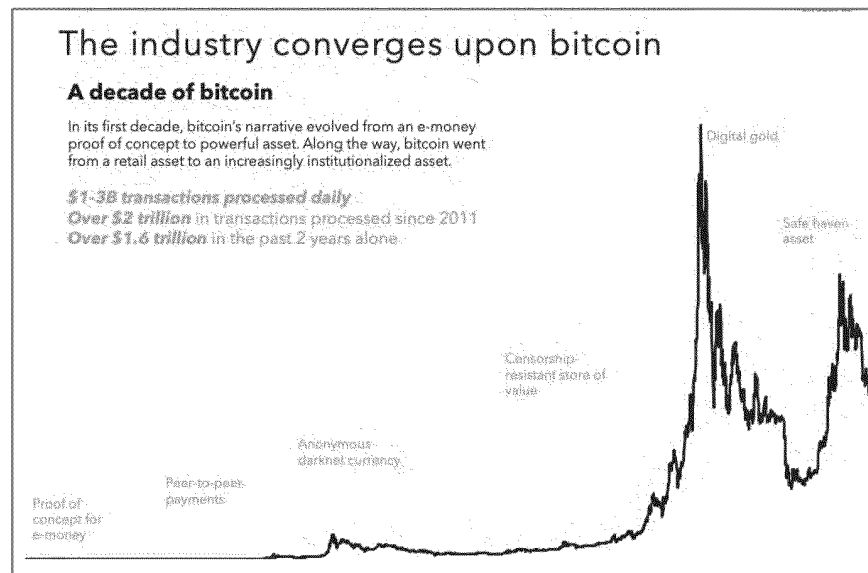
Table 29: Investment Narratives for Bitcoin (2009 - Present)¹²⁸

¹²⁵ Grayscale, *Digital Asset Investment Report*, GRAYSCALE.CO (through Mar. 31, 2020), https://grayscale.co/wp-content/uploads/2020/04/Q1_REPORT_2020.pdf.

¹²⁶ CFTC Staff Issues Advisory for Virtual Currency Products, CFTC No. 7731-18 (May 21, 2018), <https://www.cftc.gov/PressRoom/PressReleases/7731-18>.

¹²⁷ James Faucette, Betsy Graseck, Sheena Shah, *Update: Bitcoin, Cryptocurrencies, and Blockchain*, MORGAN STANLEY (Oct. 31, 2018).

¹²⁸ See Joseph Birch, *Morgan Stanley Report Shows Strong Institutional Investment for Bitcoin*, COINTELEGRAPH.COM (Nov. 6, 2018), <https://cointelegraph.com/news/morgan-stanley-report-shows-strong-institutional-investment-for-bitcoin>.

Table 30: Bitcoin's Price History and Investment Narratives¹²⁹

Bitcoin has also become a popular portfolio diversifier among institutional investors.¹³⁰ When comparing bitcoin with more traditional investments such as broad market equity indices, bonds, and gold, the asset has very low levels of long-term correlation.¹³¹

Table 31: Bitcoin's Low Correlation Has Gained Attention for Institutional Investors as a Diversifier¹³²

Correlation 2/1/2012 to 12/31/2019	S&P 500	US Bonds	Bitcoin	Gold	US Real Estate	Oil	Emerging Market Currencies
S&P 500		-0.30	0.01	-0.05	0.59	0.31	0.29
US Bonds	-0.30		0.03	0.28	0.12	-0.18	0.09
Bitcoin	0.01	0.03		0.03	0.04	-0.05	-0.01
Gold	-0.05	0.28	0.03		0.07	0.08	0.30
US Real Estate	0.59	0.12	0.04	0.07		0.12	0.27
Oil	0.31	-0.18	-0.05	0.08	0.12		0.23
Emerging Market Currencies	0.29	0.09	-0.01	0.30	0.27	0.23	

In addition to maintaining a low correlation with traditional asset classes, bitcoin has also historically outperformed them.¹³³ The asset has done well versus major indices, and most long-term periods have been positive for the digital currency since its introduction in 2009.¹³⁴ Over the last nine years, bitcoin has had a 209% compound annual growth rate with essentially zero long-term correlation to stocks, bonds, oil, and other asset classes.¹³⁵ The low correlation of bitcoin relative to traditional investments, coupled with historical performance has attracted institutional investor interest.¹³⁶

¹²⁹ Blockchain Capital, *State of Crypto 2019* at 22 (Jan. 2020),

<https://blockchain.capital/wp-content/uploads/2020/01/Blockchain-Capital-2019-Year-in-Review.pdf>.

¹³⁰ VanEck, *The Investment Case for Bitcoin*, 14 VANECK.COM (2019), <https://www.vaneck.com/globalassets/home/us/vaneck-digital-assets--the-investment-case-for-bitcoin.pdf>.

¹³¹ *Id.* at 13.

¹³² *Id.* at 13.

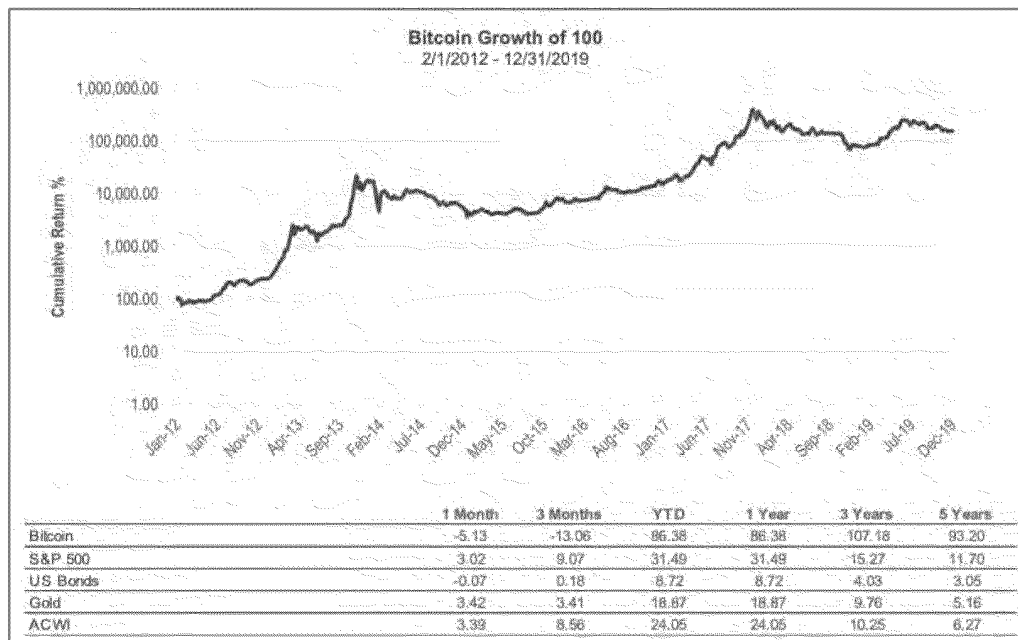
¹³³ *Id.* at 12.

¹³⁴ *Id.*

¹³⁵ *Id.*

¹³⁶ Yukun Liu & Aleh Tsyvinski, *Risks and Returns of Cryptocurrency*, NAT'L BUREAU OF ECON. RESEARCH 22-23 (Aug. 2018), <https://www.nber.org/papers/w24877.pdf>.

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Table 32: Bitcoin's Historical Performance Relative to Other Asset Classes¹³⁷

Volatility Impact on Product and Service Offerings

Digital asset volatility tends to increase trading opportunities and is a regular occurrence for current market participants. Additionally, bitcoin has demonstrated a Sharpe ratio¹³⁸ above 1.0 (based on 2013-2019 data)¹³⁹ and has shown uncorrelated returns, attracting institutions such as hedge funds and family offices. Based on several factors we believe more traditional and risk-averse, fiduciary institutions will ultimately follow when legal, regulatory and infrastructure issues (such as institutional custody) are solved. Volatile assets that are trending higher especially attract quant funds, such as Renaissance Technologies, which recently disclosed in an SEC filing that it is beginning to trade Bitcoin futures.¹⁴⁰ In a recent letter to shareholders, highly-respected hedge fund manager Paul Tudor Jones disclosed the purchase of Bitcoin futures.¹⁴¹

¹³⁷ *Id.*

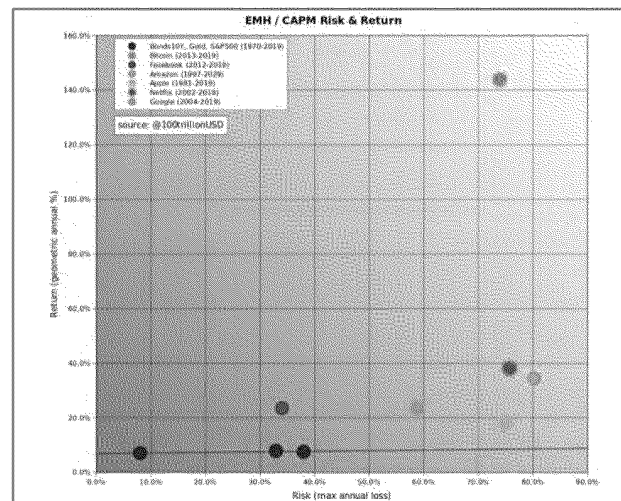
¹³⁸ The Sharpe Ratio, which is the average return earned in excess of total risk on an asset, is a metric used by investors to understand and qualify the return of an investment based on presented risks.

¹³⁹ Bitcoinist, *Bitcoin is the Only Asset with a Sharpe Ratio More than 1*, BITCOINIST.COM (Jan. 25, 2020), <https://bitcoinist.com/bitcoin-is-the-only-asset-with-sharpe-ratio-more-than-1-planb/>.

¹⁴⁰ Ian Allison, *'Long Bitcoin' it Ain't: Crypto Traders Make Sense of Renaissance Filing*, COINDESK.COM (Apr. 21, 2020), <https://www.coindesk.com/long-bitcoin-it-aint-crypto-traders-make-sense-of-renaissance-filing>.

¹⁴¹ Colin Harper, *No, Paul Tudor Jones Is Not Buying Bitcoin—He's Buying Bitcoin Futures*, FORBES.COM (May 7, 2020), <https://www.forbes.com/sites/colinharper/2020/05/07/paul-tudor-jones-buying-bitcoin-futures>.

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Table 33: Comparison of Sharpe ratios (Bitcoin vs. Selected Technology Stocks)¹⁴²

However, we expect that more traditional customers would choose to convert digital assets to U.S. dollars during times of increased volatility, which would lead to a reduction in Avanti's custody revenue. It is worth noting that virtual currency prices do not need to continue their upward trajectory for Avanti to do well as a business. Avanti would benefit from a continued increase in total digital asset market value, but Avanti's business model allows some offsets—*i.e.*, during highly volatile corrections, trading revenues would likely increase while custody fees would likely decline, and vice versa. Fiat on/off-ramp activity has generally been bi-directional during periods of high volatility.

Competitor Analysis

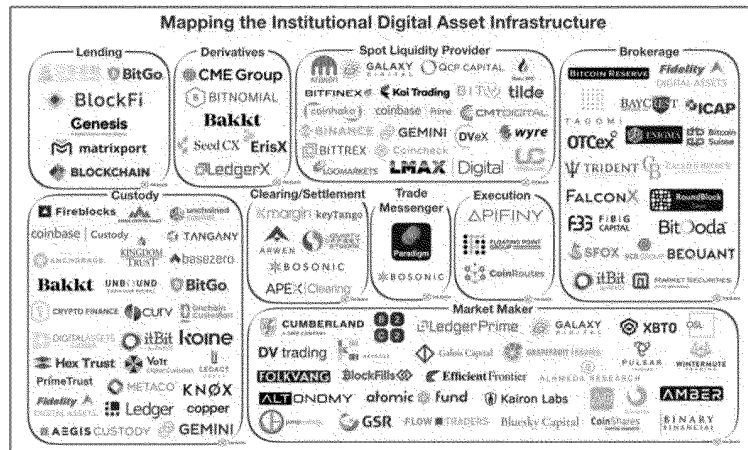
Avanti will compete with other U.S. banks as well as specialty and diversified financial services companies to provide digital asset services to both industry players and institutional market participants. The competitive landscape in which we will operate is fragmented, with both incumbent players and new entrants vying for position in the market. Within this setting, many companies compete with each other across various business lines—a situation where we believe strategies that emphasize strategic partnership will be both prudent and effective.

This section begins with a general overview of our competitive environment then provides a categorical analysis of our competitors broken down by core product area.

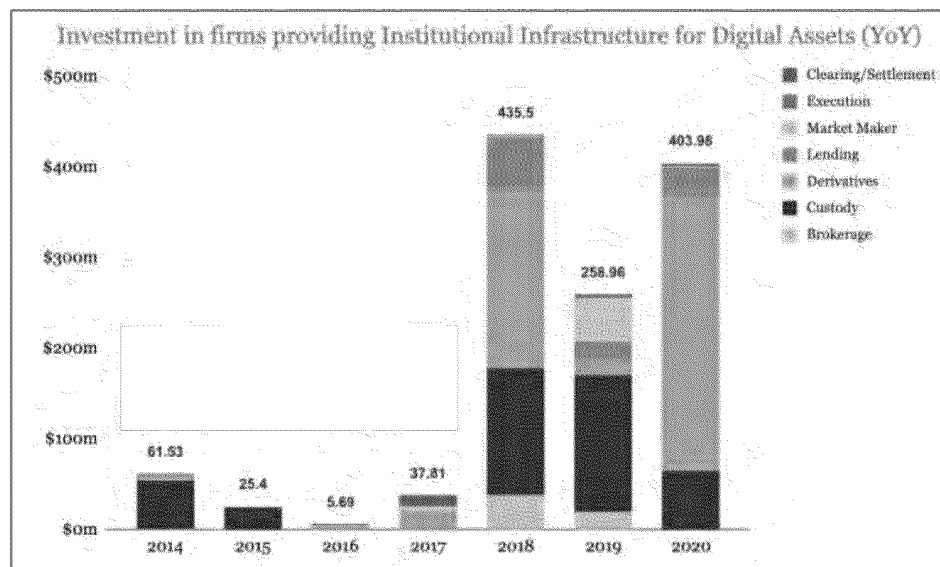
State of Play: Digital Asset Competitors

The market for digital asset services has undergone significant expansion in recent years. There are now more than one hundred companies operating in various business verticals.

¹⁴² See PlanB, *Bitcoin Stock-to-Flow Cross Asset Model*, MEDIUM.COM (Apr. 27, 2020), <https://medium.com/@100trillionUSD/bitcoin-stock-to-flow-cross-asset-model-50d260feed12>, and PlanB, TWITTER.COM (Jan. 25, 2020), <https://twitter.com/100trillionUSD/status/1221114618925527040>.

Table 34: Digital Asset Competitive Landscape¹⁴³

This landscape is different from that of just a few years ago, marking a transformation that has been primarily fueled by increased institutional involvement in the asset class. Since 2017, more than \$2.1 billion has been invested in companies whose products and services cater to this side of the market, with \$1.2 billion going to companies focused specifically on institutional infrastructure and clients.¹⁴⁴

Table 35: Institutionalization of Digital Assets: Investment in Infrastructure, 2014-2020¹⁴⁵

These investments have backed a rise in custom services tailored to meet the particular needs of institutional market participants—a clear departure from the retail-focused infrastructure of the space in its earlier days and one that has paved the way for a deeper entwinement of digital assets with conventional finance. Although the charts above are representative of only the largest custodians, over the last few years, more than a dozen custodians have emerged to

¹⁴³ John Dantoni, *Mapping the Institutional Digital Asset Infrastructure Space*, THEBLOCKCRYPTO.COM (May 12, 2020), <https://www.theblockcrypto.com/genesis/64661/mapping-the-institutional-digital-asset-infrastructure-space>.

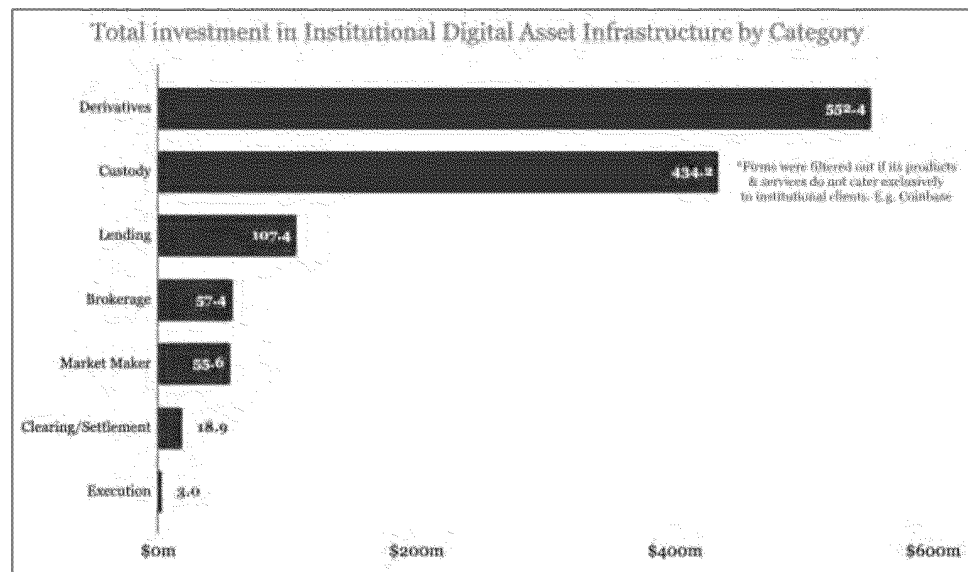
144 *Id.*

145 *Id.*

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safekeep digital assets. The maturing ecosystem of trading venues has brought material liquidity to the space, while new investment products (including futures and hedging instruments) have come to market.¹⁴⁶

Table 36: Institutionalization of Digital Assets: Investment in Infrastructure by Category¹⁴⁷



Despite the supply-side activity, widespread institutional involvement has remained fairly limited. There are several reasons for this, including:

- **Immature market structure:** The bulk of existing infrastructure was developed to meet retail demand for speculative activities, not institutional demand for investment and other use cases; in addition, providers are in various states of maturity with their product strategies, designs, and launch plans.
- **Legal risk:** The legal status of many digital asset transactions under U.S. commercial law is unclear, except in Wyoming. Additionally, the terms and conditions of service providers are unclear and tend to favor the institution rather than the consumer. For example, the terms and conditions of an institutional provider warn purchasers that the transactions may not be legally enforceable.¹⁴⁸
- **Lack of a clear and standardized regulatory environment:** Providers operate across multiple jurisdictions with varied legal and regulatory frameworks.
- **Friction between digital assets and U.S. dollars:** At present, banking institutions cannot service digital assets. This slows the speed at which value can move between digital assets and the conventional financial system.
- **Other risks:** The technology is new, the regulations are not explicit, and the participatory risk is perceived as higher than that of traditional trading and investing; in addition, the digital asset market is volatile and valuation models are amorphous.

¹⁴⁶ See Steven Zheng, *Mapping Out Crypto Custody*, THEBLOCKCRYPTO.COM (Nov. 11, 2019), <https://www.theblockcrypto.com/genesis/46696/mapping-out-crypto-custody>; see also Ryan Todd, *Institutional Digital Asset Derivative Markets*, THEBLOCKCRYPTO.COM (May 19, 2020), <https://www.theblockcrypto.com/genesis/65421/institutional-digital-asset-derivative-markets>.

¹⁴⁷ John Dantoni, *Mapping the Institutional Digital Asset Infrastructure Space*, THEBLOCKCRYPTO.COM (May 12, 2020), <https://www.theblockcrypto.com/genesis/64661/mapping-the-institutional-digital-asset-infrastructure-space>.

¹⁴⁸ “The regulatory status of USDC and blockchain technology is unclear or unsettled in many jurisdictions. It is difficult to predict how or whether regulatory agencies may apply existing regulation with respect to USDC, blockchain technology and its applications. Accordingly, it is not possible to determine whether a USDC transfer would be recognized under applicable law by a court or regulator at the U.S. state, U.S. federal, or international level.” <https://support.usdc.circle.com/hc/en-us/articles/360001233386-Circle-USDC-User-Agreement>.

This gap between institutional needs and existing solutions represents a significant business opportunity, and one that brings competitive incentive to offer services and infrastructure solutions that not only increase efficiency and reduce entry barriers but also comply with the highest standards of regulation.

Core Banking

While most large multinational banks are reluctant to serve digital asset customers,¹⁴⁹ a handful of smaller banks in the U.S. have been willing to provide services. These include [REDACTED] Bank, Signature Bank, and Metropolitan Bank. As shown below, this trio custodies a combined \$3.3 billion in deposits from digital asset related customers (as of Dec. 31, 2019).

Table 37: Competitors for Fiat Core Banking Services^{150 151 152}

Bank	Total	Digital Asset Customer Deposits	Percent of Total Deposits	Number of Digital Asset Customers
Silvergate Bank	\$1.8 billion	\$1.2 billion	67%	804
Signature Bank	\$40.4 billion	\$2.0 billion	5%	>100
Metropolitan Commercial Bank	\$2.8 billion	\$104.2 million	4%	N/A

In addition to providing cash management services, including wire transfers, ACH, and foreign exchange conversions to digital asset customers, these banks are also some of the select few to have clear-cut business initiatives around digital assets. As such, we consider them as our most direct source of competition from the banking sector at large.

Metropolitan has remained largely focused on providing basic cash management and electronic payment services to digital asset customers. [REDACTED] and Signature, on the other hand, offer additional value-added services. These two banks have developed their own respective intra-bank payment networks, both of which (i) allow commercial customers to settle more quickly between each other and (ii) alleviate industry pain points including the more efficient settlement of the U.S. dollar side of digital asset trades.

[REDACTED] Bank

California-based [REDACTED] Bank was founded in 1988 and has an asset size of \$2.1 billion (as of Dec. 31, 2019).¹⁵³ The bank began its pursuit of digital asset related business in 2013 and has since become one of the leading providers of fiat-based financial services and infrastructure solutions to the digital asset market. As indicated below, [REDACTED] has been quite successful in growing its related customer base in recent years.

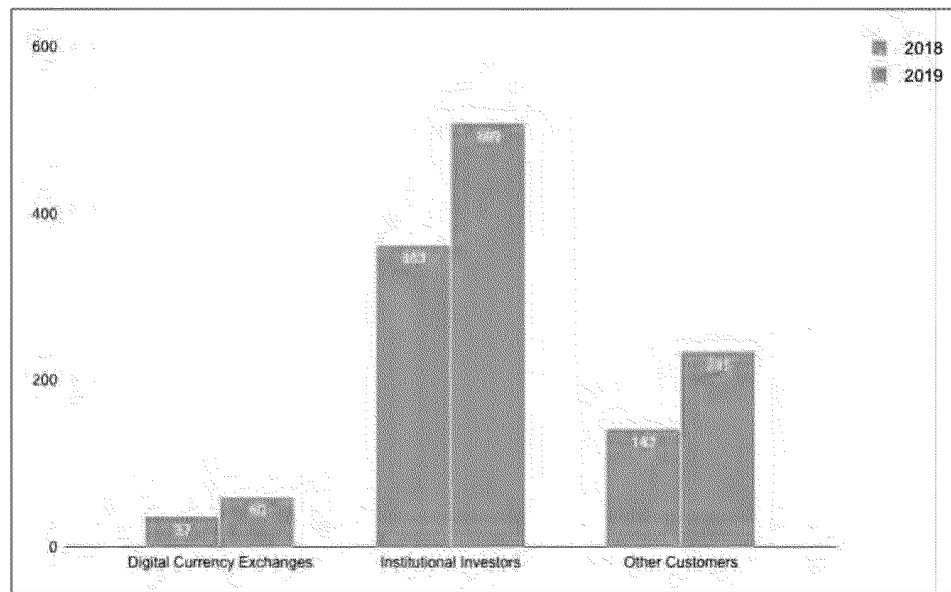
¹⁴⁹ Large multinational banks often cite concerns about compliance costs, ambiguous regulations, and market volatility as primary reasons for which they have remained reluctant to service the digital asset industry. *See American Banker, Crypto Companies Complain They're Being Shunned By Most Banks*, AMERICANBANKER.COM (Mar. 4, 2019), <https://www.americanbanker.com/articles/crypto-companies-complain-theyre-being-shunned-by-most-banks>).

¹⁵⁰ *See* [REDACTED] Bank Annual Report (Form 10-K) (Mar. 10, 2020).

¹⁵¹ *See* Signature Bank Annual Report (Form 10-K) (Mar. 28, 2020).

¹⁵² *See* Metropolitan Bank Holding Corp. Annual Report (Form 10-K) (Mar. 9, 2020).

¹⁵³ *See* [REDACTED] Bank Annual Report, *supra* note 50.

Table 38: [REDACTED] Digital Asset Customers, 2018-2019¹⁵⁴

Unlike Signature, which has elected to target a broad range of industries and ecosystems (*i.e.*, digital asset customers *plus* traditional and/or fiat-only customers), [REDACTED] is specifically focused on the institutional side of the digital asset industry. As such, we see [REDACTED] as perhaps our most direct banking competitor. Additional reasons for this are:

- **Deep exposure to the digital asset industry:** With 67% of its total deposits coming from digital asset customers, [REDACTED] has an overall business model that prioritizes digital assets.¹⁵⁵
- **Strategic focus on institutions:** [REDACTED] directly targets digital asset fintech companies, including exchanges and other service providers, and institutional investors with digital asset holdings.
- **Product strategy that emphasizes ecosystem utility:** The [REDACTED] Exchange Network (“SEN”), which allows for the movement of USD between digital asset customers, now connects 80 exchanges and OTCs to almost 500 institutional investors.¹⁵⁶

The majority of [REDACTED] funding now comes from non-interest-bearing deposits associated with digital asset customers—something that the bank sees as an advantage over more typical business models since it allows for the bank to generate risk-adjusted returns on a conservative portfolio of investments in cash, short-term securities and certain types of loans. In addition, [REDACTED] views fee income as a valuable source of ongoing revenue and, as discussed below, is developing additional fee-based solutions around the digital asset side of its business.

The [REDACTED] Exchange Network: At the core of [REDACTED] digital asset initiative is the SEN, a settlement layer for fiat transactions that allows U.S. dollars to move across an intra-bank network of participating clients. The core function of the platform is to allow participants to make transfers of U.S. dollars from their SEN account at [REDACTED] to the account of another SEN participant with which a counterparty relationship has been established. This can be done via [REDACTED] cloud-based API or online banking portal, enabling real-time transfers and availability of funds through the bank’s data processing system.¹⁵⁷

The SEN was initially developed in 2017 with a limited number of customers before being made more widely available in early 2018. Transfers via SEN, which are no-cost book transfers between bank customers, occur on a “virtually

¹⁵⁴ See [REDACTED] Bank Annual Report (Form 10-K) (Mar. 10, 2020).

¹⁵⁵ *Id.*; see also [REDACTED] Capital Corporation Registration Statement (Form S-1) (Nov. 16, 2018).

¹⁵⁶ See [REDACTED] Bank Annual Report, *supra* note 50

¹⁵⁷ [REDACTED] [REDACTED] Exchange Network, SILVERGATEBANK.COM, <https://www.silvergatebank.com/solutions/digital-currency/sen> (last visited Jun. 7, 2020).

instantaneous” basis, and since the network is limited to just bank customers, the deposits don’t leave [REDACTED] when they are transferred.¹⁵⁸

As of late 2018, the bank had about 61% of its eligible digital asset customers participating in the program.¹⁵⁹ Management expects the platform to grow to a “critical mass of adoption and utilization across the digital currency industry” in the coming years.¹⁶⁰ Outside of the traditional banking system, products that compete with the SEN include RippleNet¹⁶¹ and the Stellar Network.¹⁶² Like the SEN, these global payment systems are fast, available 24/7, and benefit from the network effects of increased participation.

[REDACTED] identifies the following as key competitive advantages provided by the SEN: (i) network effects via providing incremental value to existing customers by onboarding new ones; (ii) low-cost customer acquisition, since the product is specifically designed for digital asset customers that don’t have many other options; and (iii) the ability to grow income-free.

The bank ended 2019 with 804 SEN customers (a 48% increase over year-end 2018) and a new customer pipeline with more than 200 institutions in the “review and approval” process.¹⁶³ As customer count has grown, so too has customer utilization of the SEN. For 2019, the network handled \$32.7 billion of USD transfers,¹⁶⁴ representing 296% growth year-over-year. The network also experienced significant growth in the total number of SEN transactions, which increased by 485% in 2019 as compared to 2018.¹⁶⁵

Financial Outlook: While net interest income still represents a significant portion of [REDACTED] total revenues, the bank is continuing to evolve its business towards a fee-based model as it pushes for further adoption of the SEN. At present, the bank’s fee income consists mainly of foreign exchange transactions, cash management solutions (ACH/wires) and SEN usage fees.

For 2019, fee income related to digital asset customers was \$4.9 million,¹⁶⁶ which represents a 148% increase as compared to 2018.¹⁶⁷ In Q4 2019, these fees totaled \$1.4 million¹⁶⁸ (representing an increase of 102% as compared to Q4 2018).¹⁶⁹ The underlying growth of the SEN has continued as well, with Q4 2019 transactions growing 17% sequentially from Q3 2019.¹⁷⁰

[REDACTED] is also continuing to explore new ways to monetize the SEN. One recent example is SEN Leverage, which is a planned product that will allow customers to obtain USD loans collateralized by bitcoin held at select exchanges already partnered with the bank.¹⁷¹ The product will use the SEN to fund loans and process repayments in real-time (the loans will be funded from [REDACTED] own balance sheet) and allow institutional clients of exchanges to use fiat without having to touch the digital asset balances held in those venues.

[REDACTED] decision to pivot its attention toward digital assets has had a positive impact on its business. The bank made more total profits in the first six months of 2019 (\$14.6 million) than it did in all of 2017 (\$7.6 million), and it

¹⁵⁸ See [REDACTED] Capital Corporation Quarterly Report at 33 (Form 8-K) (May 2, 2020).

¹⁵⁹ See Matt Yamamoto, [REDACTED] Bank: Company Analysis, MEDIUM.COM (Dec. 3, 2018), <https://d18m0p25nwr6d.cloudfront.net/CIK-0001312109/a5f899e9-58ba-4b63-96cc-3c8f3566904e.html>.

¹⁶⁰ See [REDACTED] Capital Corporation Registration Statement at 12 (Form S-1) (Nov. 16, 2018).

¹⁶¹ See ripple, RIPLE.COM, <https://ripple.com/> (last visited Jun. 4, 2020).

¹⁶² See stellar, STELLAR.ORG, <https://www.stellar.org/> (last visited Jun. 4, 2020).

¹⁶³ See [REDACTED] Bank Earnings Call Transcript for Fourth Quarter 2019 (Jan. 29, 2020),

<https://www.fool.com/earnings/call-transcripts/2020/01-29-2020/>; [REDACTED]

¹⁶⁴ See [REDACTED] Capital Corporation Annual Report (Form 10-K) (Mar. 10, 2020).

¹⁶⁵ [REDACTED] Capital Corporation, *Investor Relations*, SILVERGATEBANK.COM, <https://ir.silvergatebank.com/corporate-profile/default.aspx> (last visited Jun. 4, 2020).

¹⁶⁶ See [REDACTED] Capital Corporation Annual Report at 8 (Form 10-K) (Mar. 10, 2020).

¹⁶⁷ *Id.*

¹⁶⁸ See [REDACTED] Capital Corporation Quarterly Report at 52 (Form 10-Q) (Dec. 4, 2019).

¹⁶⁹ *Id.*

¹⁷⁰ See [REDACTED] Capital Corporation, *supra* note 123.

¹⁷¹ [REDACTED] Capital Corporation, [REDACTED] Announces SEN Leverage to Provide Digital Currency Investors Increased Capital Access, NASDAQ.COM (Jan. 14, 2020), [REDACTED] digital-currency-investors.

has been able to attract the business of leading industry players including Gemini, [REDACTED] BitFlyer, trueUSD, Coinbase, Polychain Capital, and BitStamp.¹⁷²

Until recently, the cost of deposits for banks had been steadily increasing as a result of rising interest rates. Despite this, [REDACTED] had been able to achieve one of the lower cost of deposits in the banking industry by catering to a community that had struggled to find banking partners.¹⁷³ Non-interest-bearing deposits now make up the majority of the bank's total deposits, with its digital asset customers contributing a large majority of that.

In response to the extremely volatile nature of the digital asset industry, [REDACTED] is forced to invest in mostly lower yielding short-term assets to maintain high levels of liquidity. Most of the funding from incoming deposits has been deployed into deposits in other banks and investment securities, while loan growth has remained relatively flat.

Since upside on interest income is limited due to the bank's conservative asset allocation, future earnings growth is heavily reliant on the bank's ability to increase non-interest-bearing deposits. Expanding the bank's customer base will be pivotal moving forward, especially if customer deposits continue to decline (as had been the case in late 2019 and early 2020).

Custody Services for Digital Currencies (Future): [REDACTED] has an interest in providing services around the custody and transfer of digital assets between bank customers. The bank is actively pursuing the establishment of a "qualified custodian" entity (as a new subsidiary) to address this market opportunity. The bank has submitted an application for this entity to become a New York-chartered trust company, with the application currently under review.¹⁷⁴

[REDACTED] estimates that there are "custodial services currently being sought with respect to several billions of dollars' worth of digital currency related assets" and believes that it is well-positioned to capture market share given its existing relationships.¹⁷⁵ The bank will face competition on this front: Coinbase, one of [REDACTED] customers, opened its own custody business in July 2019; Fidelity announced the launch of its own crypto custody company called Fidelity Digital Asset Services; and even incumbents such as JP Morgan Chase, Northern Trust, and Goldman Sachs are also reported to be developing their own products to hold digital assets in custody.¹⁷⁶

Competitive Advantages: [REDACTED] primary competitive advantage is its wide network of industry connections. The bank serves over 750 digital asset related clients, including some of the most well-known digital asset exchanges. Moving forward, [REDACTED] will be able to leverage its customer network to identify new clients and opportunities for growth.

In addition, [REDACTED] also claims that it has developed "proprietary compliance capabilities" that give it a distinct advantage over its competitors. These include:¹⁷⁷

- Prudently and efficiently establishing deposit accounts
- Ongoing monitoring of customer activities
- Evaluating a client's ability to actively monitor the flow of funds of its own customers

In establishing deposit accounts, [REDACTED] current methodology involves the categorization of each customer based on its level of risk. At a minimum, the bank will produce detailed reviews of each customer's ownership, management, business activities, and geographies of operation. Depending on the needs of each customer, the bank will investigate

¹⁷² See Ryan Todd, [REDACTED] *How Servicing the Digital Asset Industry Established a Differentiated Business Model*, THEBLOCKCRYPTO.COM (Apr. 27, 2020), [REDACTED]

¹⁷³ See [REDACTED] Capital Corporation Annual Report at 3 (Form S-1/A) (March 18, 2019).

¹⁷⁴ See Adrian Zmudzinski, [REDACTED] *Bank Plans to Offer Cryptocurrency-Collateralized Loans*, COINTELEGRAPH.COM (Aug. 18, 2019), [REDACTED]

¹⁷⁵ See [REDACTED] Capital Corporation Registration Statement at 13 (Form S-1) (Nov. 16, 2018).

¹⁷⁶ See Alex Lielacher, *Institutional-Grade Crypto Custody Solutions Have Arrived. Now What?*, BRAVENEWCOIN.COM (May 29, 2019), <https://bravenewcoin.com/insights/institutional-grade-crypto-custody-solutions-have-arrived-now-what>.

¹⁷⁷ See [REDACTED] Capital Corporation Registration Statement at 7 (Form S-1) (Nov. 16, 2018).

further, with exchanges being the most complex and demanding. The onboarding process for each applicant can take between a few days to six to eight weeks.

Business Risks: Several large depositor relationships make up a substantial portion of [REDACTED] total deposits. It is likely that these digital asset related customers have deposit accounts that are almost entirely non-interest bearing. Not only is [REDACTED] financial stability highly dependent on these few customers, but its reliance on these customers gives those customers leverage to negotiate for higher-yielding deposit accounts that would be more in line with those typically offered by traditional banks. Management has stated that withdrawals from these accounts could force the bank to rely more heavily on higher-cost sources of funding, which would have adverse effects on net interest margin and overall profitability. Additionally, if a large exchange were to suddenly drop from [REDACTED] a meaningful decrease in transaction activity could occur at [REDACTED].

Signature Bank

Signature Bank is a full-service commercial bank with private client offices located throughout the New York metropolitan area, Connecticut, and San Francisco. Since commencing operations in 2001, the bank has grown to \$50.62 billion in assets, \$40.38 billion in deposits, \$39.11 billion in loans, \$4.77 billion in equity capital, and \$3.67 billion in other assets under management.¹⁷⁸

Regarding digital assets, Signature reported \$2 billion in deposits related to digital asset customers as of December 31, 2019. A core part of the bank's digital asset initiative is Signet, a proprietary commercial payments platform that was launched by the bank in January 2019.¹⁷⁹ The platform enables commercial customers of the bank to make real-time payments with each other through an asset tokenization and redemption process that leverages both blockchain and stablecoin technologies.

Signet is approved by the NYDFS and was developed by Signature in partnership with Tassat Group LLC, formerly trueDigital LLC, a technology company based in New York that specializes in blockchain-based infrastructure, exchange, and settlement technologies.¹⁸⁰ The U.S. dollars that users hold in the platform are eligible for FDIC insurance (up to legal insurable amounts) and users must comply with all know-your-customer and anti-money-laundering laws. Clients are expected to maintain a minimum balance of \$250,000, but Signature does not presently charge customers for use of the platform, in transaction fees or otherwise.

The platform allows clients to move their funds within 30 seconds (24 hours a day, 7 days a week, 365 days per year) by converting U.S. dollars into "signets," which are the platform's version of digitized U.S. dollars. Each signet represents one dollar held in a deposit account at the bank. Signets are based on the ERC-20 token standard but are designed to work only on Signet (*i.e.*, they do not currently interoperate with other exchanges or services built to accommodate the ERC-20 standard). Signature has publicly stated that it does not intend to directly interact with virtual currencies anytime soon.¹⁸¹

In February 2019, just one month after the launch of Signet, the CEO of Signature stated: "we can say there are trades in the millions some days and tens of millions other days, and I would say the number of clients we have is in the triple digits."¹⁸² In addition to companies in the digital asset industry (*i.e.*, exchanges, over-the-counter service providers, and market makers), Signature also targets other business "ecosystems," or industries that are unrelated to the digital asset market. To date, the bank has onboarded customers from the following ecosystems: wholesale energy, air cargo and fuel distribution, precious metals, and commercial real estate. The CEO of Signature has repeatedly

¹⁷⁸ See Signature Bank Annual Report at 3 (Form 10-K) (Feb. 28, 2020).

¹⁷⁹ See generally Signature Bank, *Signature Bank Unveils Proprietary Digital Payments Platform, Signet*, SIGNATURENY.COM (Dec. 4, 2018), <https://investor.signatureny.com/file/Index?KeyFile=395984336>.

¹⁸⁰ See generally Signature Bank's Press Release, *trueDigital Launches Revolutionary Real-Time Payments Platform with Signature Bank*, TASSAT.COM (Dec. 4, 2018), <https://www.tassat.com/press-releases/truedigital-launches-revolutionary-real-time-payments-platform-with-signature-bank>.

¹⁸¹ See Michael del Castillo, *Signature Launches Institutional Payments Using Permissioned Ethereum Blockchain*, FORBES.COM (Dec. 4 2018), <https://www.forbes.com/sites/michaeldelcastillo/2018/12/04/signature-launches-institutional-payments-using-permissioned-ethereum-blockchain/#311fe0bb3eff>.

¹⁸² See Ian Allison, *'Already Live': Signature Bank is Moving Millions on a JPMorgan-Like Private, Dollar-Backed Cryptocurrency*, COINDESK.COM (Feb. 4 2019), <https://www.coindesk.com/already-live-signature-bank-is-moving-millions>.

highlighted that onboarding non-crypto business ecosystems is a key growth strategy for the bank; however, he did label the digital asset industry as an “enormous opportunity” that is “in the billions.”¹⁸³

Signature sees Signet as a major opportunity for deposit sourcing, and accounts related to the digital asset industry are largely non-interest bearing. In the fourth quarter of 2019, non-interest bearing deposits (in general) increased by \$1 billion, representing 32% of total deposits. Signature’s non-interest earning income for the same quarter was \$7.3 million (up \$1.4 million from the \$5.9 million reported in the fourth quarter of 2018). The increase was driven by a \$1.3 million increase in fees and service charges, suggesting that business from digital asset related customers has been a driver of income for the bank.¹⁸⁴

In mid-2019, Signature announced a partnership with Prime Trust, a technology-driven trust company that competes in the financial services industry for digital assets.¹⁸⁵ Shortly before the announcement, Prime Trust had launched its advanced multi-asset counterparty settlement platform dubbed PrimeX.¹⁸⁶ The platform allows for Prime Trust account holders to transfer different types of digital assets. Reportedly, this collaboration will make it possible for the PrimeX settlement platform to leverage Signet, thus offering customers of both companies to conduct real-time payments and settlements.

From a target market standpoint, Signature has elected to go after a broad range of industries and ecosystems (*i.e.*, digital asset customers in addition to traditional/fiat-only customers). Among the three U.S. banks that comprise our direct competition in the traditional banking line of our business, Signature is the only one to directly incorporate a digital-asset-industry focused service (Signet) into a marketing strategy that extends beyond the digital asset industry. Although Signature does not disclose how much of its deposits are from digital asset related clients, its management has indicated that both Signet and the bank’s digital banking team have provided significant contributions to the company’s deposit growth.

Metropolitan Commercial Bank

Metropolitan Commercial Bank (“MCB”) provides a range of business, commercial, and retail banking products and services to small businesses, middle-market enterprises, and high-net-worth individuals in the New York metropolitan area.

The bank’s primary role regarding the digital asset industry has been to provide cash management service to a customer base of exchanges and payment service providers. These customers maintain a portion of deposits in non-interest-bearing settlement accounts with Metropolitan, while the rest of their money is in corporate non-interest bearing accounts. The bank does not take digital asset exchange rate risk or have any assets or liabilities denominated in digital assets, and the board has remained selective in its decision-making process around which industry customers the bank is willing to serve—a situation that is similar to both [REDACTED] and Signature.

Metropolitan’s existing relationships in the digital asset industry (as of 12/31/19) include:¹⁸⁷

- **Coinbase:** Metropolitan maintains a deposit relationship for settlement and operating accounts with Coinbase, providing the company with these and other cash management services
- **Bitpay:** Metropolitan is the issuing bank for a debit card that is funded by digital currency and used to spend U.S. dollars
- **Crypto.com:** Metropolitan is the issuing bank for a general spend prepaid debit card that allows customers to earn rewards paid in digital currency

¹⁸³ See Signature Bank Quarterly Earnings Conference Call for 2018.

¹⁸⁴ See Signature Bank, *Signature Bank Reports 2019 Fourth Quarter and Year-End Results*, BUSINESSWIRE.COM (Jan. 21, 2020), <https://www.businesswire.com/news/home/20200121005122/en/Signature-Bank-Reports-2019-Fourth-Quarter-Year-end>.

¹⁸⁵ See generally Signature Bank, *Signature Bank and Prime Trust To Align Their Respective Technologies to Better Serve the Institutional Blockchain Industry*, SIGNATURENY.COM (Jan. 6, 2020), <https://investor.signatureny.com/file/Index?KeyFile=402036911>.

¹⁸⁶ See Prime Trust, *Prime Trust Launches PrimeX, the Instant Counterparty Settlement Network*, BUSINESSWIRE.COM (Jul. 25, 2019), <https://www.businesswire.com/news/home/20190725005200/en/Prime-Trust-Launches-PrimeX%E2%84%A2-Instant-Counterparty-Settlement>.

¹⁸⁷ See Metropolitan Bank Investor Presentation for Fourth Quarter of 2019 at 21 (Dec. 31, 2019), <http://metropolitanbankny.com/>.

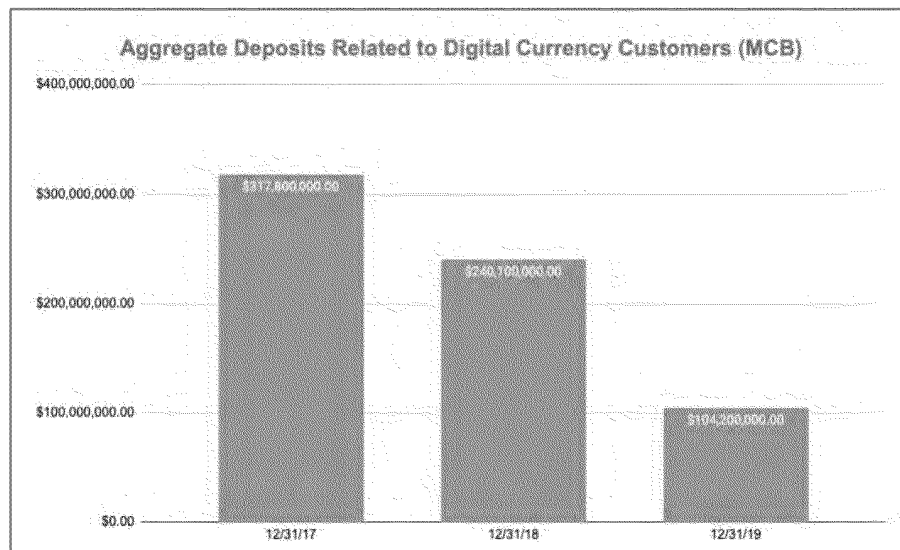
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- **Voyager:** Metropolitan is the holding bank for U.S. dollars held in the e-wallet that is behind Voyager's speed routing for best price execution technology

Additionally, Metropolitan provides settlement and payment services for e-wallets in support of digital asset exchanges and website driven commerce. The bank performs dollar-side settlements and electronic payments for a variety of companies, including proprietary trading desks, over-the-counter firms, and hedge funds.

Metropolitan continues to take a narrow approach to targeting the digital asset industry, working primarily with digital asset customers that compete in the arena of retail payment services. From a strategic standpoint, Metropolitan views engagement with this subset of the digital asset industry as a valuable part of its efforts to take a diversified approach to generating deposits.

Table 39: Metropolitan's Digital Asset Customer Depositors¹⁸⁸



Although Metropolitan was one of the earliest banks to open its doors to the digital asset industry in the US, the past few years have seen its deposits from the industry decline at a steady rate. In December of 2017, Metropolitan had a total of \$317.8 million in related deposits (mainly from a single exchange customer). By 2018, digital asset related deposits had decreased 33% to a total of \$240.1 million by year-end. In its most recent annual reporting, Metropolitan placed its digital asset related deposit total at \$104.2 million, representing a 130% decrease from December 2018.¹⁸⁹ This downward trend is due in part to the bank's decision to target only a specific subset of the digital asset industry (namely exchanges and payment service providers in the space). Additionally, Metropolitan has faced growing competition from the likes of [REDACTED] and Signature, both of which have more robust initiatives around the digital asset industry as well as see the industry as a more integral part of their mid- to long-term business strategies.

In the first quarter of 2020, Metropolitan posted a \$25 million increase in deposits from its digital asset customers.¹⁹⁰ This marks a 24% increase over the fourth quarter of 2019, although it is 40% lower than the same period last year. The company also saw an increase in the share of deposits from digital asset customers. This metric grew from 3.7% of total deposits in Q4 2019 to 4.2% of total deposits in Q1 2020.

¹⁸⁸ See Metropolitan Bank Holding Corp. Annual Report (Form 10-K) (Mar. 9, 2020).

¹⁸⁹ See Metropolitan Bank Holding Corp. Annual Report at 9 (Mar. 31, 2019).

¹⁹⁰ See Nathan DiCamillo, *Crypto Firm Deposits Jump 24% in Q1 at Metropolitan Commercial Bank*, COINDESK.COM (Apr. 24, 2020), <https://www.coindesk.com/metropolitan-commercial-bank-q1-crypto-deposits>.

Metropolitan has also recently increased its presence in the digital asset space, partnering with British digital banking service Revolut, whose mobile app launched in the U.S. in March 2020.¹⁹¹ Revolut partnered with Metropolitan for depository and payment services.

Avanti's Competitive Advantages in Core Banking for Digital Assets

Although these banks have experienced significant growth on the digital asset side of their businesses in recent years, none of them are presently able to custody digital assets. This presents a major opportunity for Avanti, since it would be able to offer real-time gross settlement on both the fiat and digital asset legs of trades. As a provider of traditional banking services that can also custody digital assets for customers, Avanti should be well-positioned to compete for the same pool of existing digital asset customers at launch.

Avit

We provide an extensive competitor analysis of the Avit product in Appendix A. It is worth noting that Avit has no direct competitors, since Avit has no direct analogue to an existing payment product. Avit is a new payment technology that complements rather than replaces existing payment systems and is more likely a “disruptor of stablecoins” than a comparable to them.

Custody

In traditional financial markets, institutions depend on third parties to securely store and service their assets, both because they are not set up operationally to self-custody assets and because laws require the use of third-party custodians in certain business lines.¹⁹² These providers are typically custody banks, the largest of which, as a measure of total assets under management, are BNY Mellon, State Street, JPMorgan Chase, and Citigroup. Today, these banks service around \$114 trillion of global assets under custody.¹⁹³

There are a number of risks associated with custody services in the traditional markets, including:¹⁹⁴

- Transaction or operational risk, which encompasses product development and delivery, transaction processing, systems development, and the complexity of products and services. This type of risk is inherently high in traditional custody businesses that see a high volume of transactions.
- Compliance risk, which arises from violations of, or non-conformance with, various laws, regulations, policies, and procedures and is particularly present in situations where the laws or rules governing certain activities may be ambiguous or untested. Since custody services are contractual in nature, compliance with the provisions of all applicable agreements is important.
- Credit risk, which arises from an obligor's failure to meet the terms of any contract with the bank. As such, it is found in all activities that depend on counterparty, issuer, or borrower performance and arises any time funds are exposed through actual or implied contractual agreements.
- Strategic risk, which results from adverse business decisions, poor implementation of decisions, or lack of responsiveness to wider industry changes.
- Reputation risk, which stems from poor public opinion. Given the specific nature of the business, a custodian's reputation is of paramount importance to its success. For example, customers may be exposed to interest rate, liquidity, price, credit, and foreign currency translation risk through the assets they hold in their custody accounts—a situation where they may hold the custodian accountable even through the related losses are not direct risks to the bank.

¹⁹¹ See Jay Peters, *Popular European Banking App Revolut is Launching in the US Today*, THEVERGE.COM (Mar. 24, 2020), <https://www.theverge.com/2020/3/24/21188412/banking-app-revolut-us-launch-mobile-bank>.

¹⁹² See Investment Company Act of 1940 and Investment Advisers Act of 1940.

¹⁹³ See Trefis Team, *Largest Custody Banks Saw Negligible Growth in Their Asset Bases Over Q2*, FORBES.COM (Aug. 8, 2018), <https://www.forbes.com/sites/greatspeculations/2018/05/18/largest-custody-banks>.

¹⁹⁴ See generally Office of the Comptroller of the Currency, *Comptroller's Handbook: Custody Services* (Jan. 2002), <https://occ.gov/publications-and-resources/publications/comptrollers-handbook/files/custody-services>.

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Avanti will mitigate these risks by the internal controls and audit procedures that we will have in place. Many of the internal controls will be built directly into the custody software by our technology team. In addition, the internal controls will be tested and audited both internally by our technology team but also externally via external auditors.

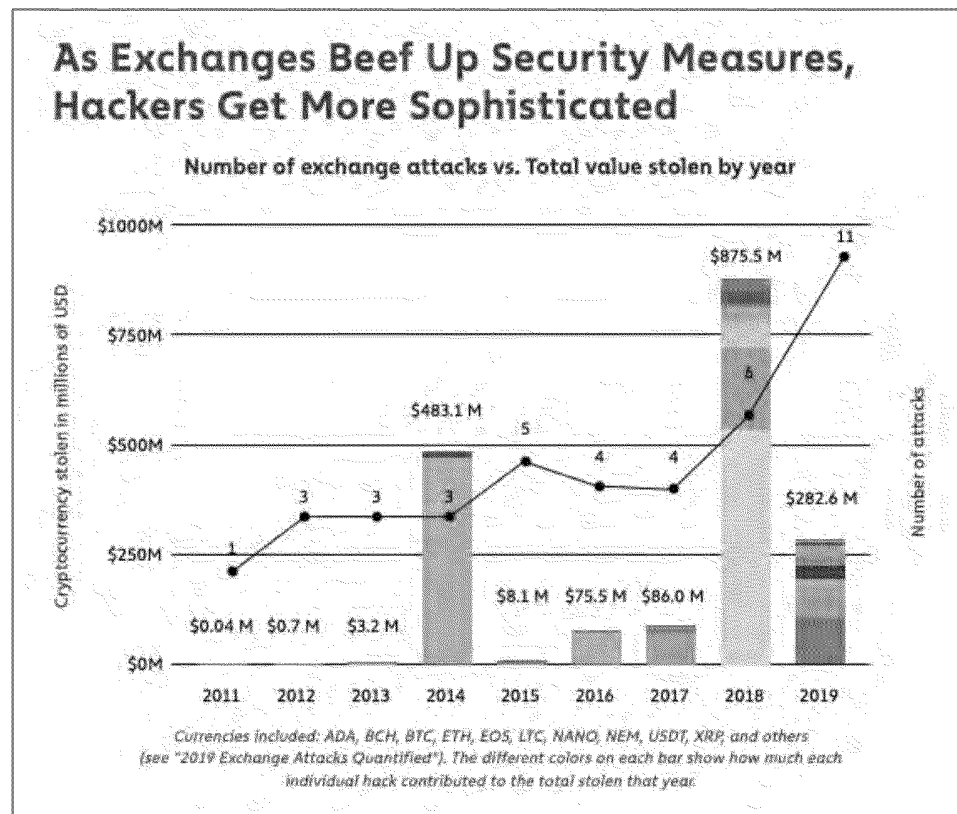
The now-consolidated market for securities custody evolved from a legacy system of self-custody—a maturation process that is interesting to note because the custody market for digital assets has been following a similar trajectory, with active institutional players and high volume traders increasingly shifting away from self-custody and exchange-based solutions and toward managed services in which assets are safekept by third-party custodians.

Just as the risks listed above apply to securities custody, they also apply to digital asset custody.

Asset safety and the legal and regulatory frameworks in which custody providers operate are primary considerations that institutional investors face when making decisions about digital asset custody. These are primary considerations for good reasons. Industry reports and market history show that multiple digital asset exchanges have experienced cybersecurity incidents that resulted in loss of funds. This has driven institutional investors to more regulated solutions with enhanced security, compliance, and operations.

Avanti plans to offer the highest grade of secure solutions, protecting customers from malicious actors—and we have a team of engineers that has proven its ability to build secure custody systems (for LedgerX and Fidelity Digital, as discussed above). Aside from being regulated and required to comply with the audit standards of Wyoming’s laws, Avanti will use best-in-class security techniques (including multi-signature and multi-device authentication (as we explain on page 66), among other techniques flagged in Table 34 below). It is worth noting that none of the compromised exchanges were audited or regulated.

Table 40: Digital Asset Exchange Attacks, 2011-2019¹⁹⁵



¹⁹⁵ Chainalysis Team, *As Exchanges Beef Up Security Measures, Hackers Get More Sophisticated*, CHAINALYSIS.COM (Jan. 21, 2020), <https://blog.chainalysis.com/reports/cryptocurrency-exchange-hacks-2019>.

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Table 41: Major Hacks and Compromises of Digital Asset Exchanges (2011-2019)¹⁹⁶

	Value (Digital Asset)	Value (USD) at Time of Hack	Value (USD) as of January 7, 2020	Attack Vector	Potential Security / Mitigation Approach
Mt Gox (2011-2014)	850,000 BTC	\$680 million	\$6.9 billion	Online accessible hot wallet, unencrypted private key	Tiered storage approach with limited fund exposure to hot wallets
Bitfloor (2012)	24,000 BTC	\$250,000	\$195 million	DDOS/power failure to exchange server, unencrypted backup key	Tiered storage approach, limited fund exposure to hot wallet, encrypted backup keys
Poloniex (2014)	97 BTC	\$116,000	\$790,000	Simultaneous withdrawal requests; no queuing utilized	Implement a queuing and sequence processes for all transactions and order methods
Cryptsy (2014)	13,000 BTC 300,000 LTC	\$9.5 million	\$120 million	Simultaneous withdrawal request via Trojan Horse placed in a vulnerable server	Secure code reviews, queuing and sequentially processing withdrawals, tolerance/balance checks
Bitstamp (2014)	19,000 BTC	\$5.2 million	\$155 million	Phishing attack	Email filters, lock-down communication channels, education and awareness
Bitfinex (2016)	120,000 BTC	\$978 million	\$978 million	Software bug in multi-signature wallet solution	Limit exposure to funds to hot wallets, recovery through second key
DAO (2016)	3,600,000 ETH	\$522 million	\$522 million	Smart contract bug	Robust smart contract, DApp source code review and testing procedures
BitGrail (2018)	17,000,000 NANO	\$11 million	\$11 million	Exchange software vulnerabilities exploited	Software security testing and review
Coincheck (2018)	523,000,000 NEM	\$15 million	\$15 million	Funds stored in hot wallet without multi-signature configuration	Tiered storage, multi-sig protection
Bitthumb (2018)	Not Disclosed	\$31 million	N/A - asset amount not disclosed	Exchange compromised after security update, possible phishing attacks	Tiered storage solution, improved cybersecurity governance, increased security education and awareness
Binance (2019)	75,000 BTC	\$40 million	\$57 million	Phishing attacks, viruses	Additional verifications for suspicious and/or large asset transfers

The custody market for digital assets has matured in recent years, with new services and solutions coming to market that aim to establish congruence in standards between traditional and digital assets. In particular, the past two years have seen an expansion in custodial services operated by regulated trust companies—a trend that has caused institutions to start to trickle into the market; it is important to note, however, that these trust companies may not be recognized as fiduciaries under federal or certain state laws, including those of Wyoming.

In 2018, digital asset native companies acquired trust charters to strengthen the regulatory structures of their solutions, and in 2019, the market continued to mature as Bakkt, Fidelity, [REDACTED] Coinbase, Gemini, [REDACTED] Prime Trust, and Kingdom Trust all launched or expanded their own custody services via trust company subsidiaries.

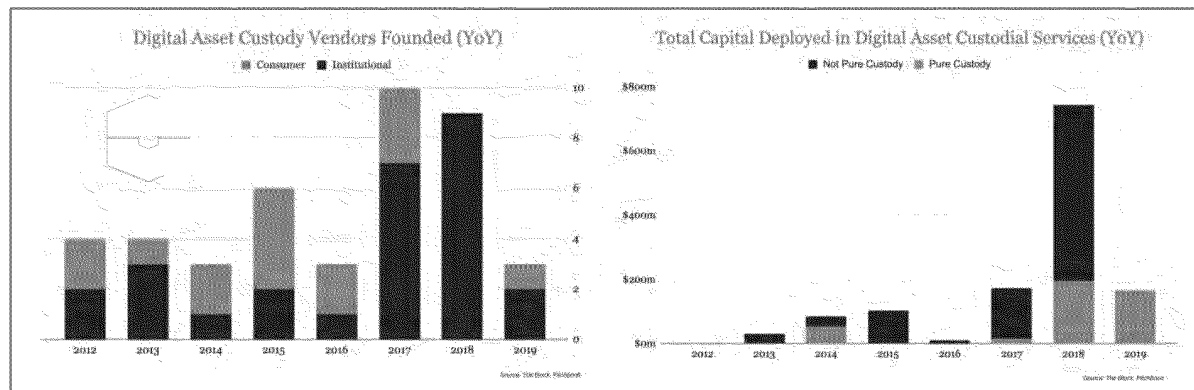
¹⁹⁶ KPMG, *Cracking Crypto Custody* at 10, KPMG.US (Nov. 6, 2019), <https://advisory.kpmg.us/content/dam/advisory/en/pdfs/2020/kpmg-cracking-crypto-currency.pdf>.

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From a funding standpoint, the digital asset custody market has seen approximately \$1.3 billion in total investment, with approximately \$419 million allocated to pure digital asset custodian firms.¹⁹⁷

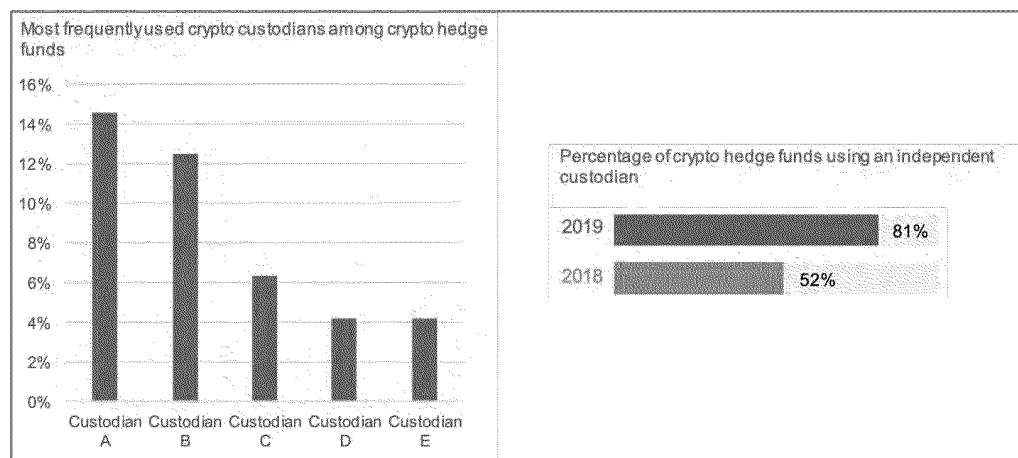
Table 42: Digital Asset Vendors Founded, 2012-2019¹⁹⁸

Table 43: Total Capital Deployed in Digital Asset Custody Services¹⁹⁹



Despite this increase in demand for custodial solutions, no clear market leader has yet emerged.²⁰⁰

Table 44: Still No Clear Leader in Digital Asset Custody (2019 versus 2018 Comparison)²⁰¹



Overview and Existing Options for Digital Asset Custody

Digital asset key storage can take many forms; the three primary forms of which are “cold”, “hot”, and “vaulted”. In cold storage, the private key is stored offline in a wallet that has never been connected to the internet. Methods of cold storage include hardware wallets and other air-gapped, disconnected hardware devices. Conversely, hot storage involves keeping private keys on an online device that is connected to some network, *i.e.*, in wallets whose private keys reside in a running computer process for perpetuity (“hot wallets”). Examples of hot wallets are web-based wallets and desktop or mobile wallets that run on connected machines. There is also vaulted storage, which uses a combination of methods.

¹⁹⁷ See John Dantoni, *Examining the Landscape of Digital Asset Custody*, THEBLOCKCRYPTO.COM (Jan. 23, 2020), <https://www.theblockcrypto.com/genesis/53485/examining-the-landscape-of-digital-asset-custody>.

¹⁹⁸ *Id.*

¹⁹⁹ John Dantoni, *Examining the Landscape of Digital Asset Custody*, THEBLOCKCRYPTO.COM (Jan. 23, 2020), <https://www.theblockcrypto.com/genesis/53485/examining-the-landscape-of-digital-asset-custody>.

²⁰⁰ See PricewaterhouseCoopers, *2020 Crypto Hedge Fund Report*, PWC.COM (Published May 2020), <https://www.pwc.com/gx/en/financial-services/pdf/pwc-elwood-annual-crypto-hedge-fund-report-may-2020.pdf>.

²⁰¹ *Id.* at 15.

Cold storage is generally considered to be the safest method of private key storage, since offline and air-gapped wallets are less vulnerable to network-based theft and require physical access. However, there are trade-offs involved: in the absence of interoperable features, cold wallets can present liquidity challenges and be more cumbersome to access than hot wallets, leading to less flexibility and longer wait times to access assets.

An increasingly popular method for securing private keys is the multi-signature scheme. Under this model, multiple keys can be combined so that a specific fixed number of keys is required to sign a transaction and move funds. Holding an individual key is insufficient to enact a transaction. This can be a powerful tool—users remain in full control of their funds but can have them backed up by a service provider who cannot unilaterally access the funds (ownership of a digital asset can also be distributed among multiple people or entities, requiring a majority of them to reach agreement before a transaction can be enacted). Today, most digital asset custodians use multi-signature techniques as part of their cold storage systems.²⁰²

There are multiple ways to implement multi-signature (or “multisig”) custody, two of which are (i) on-chain multisig and (ii) off-chain multisig. With on-chain multisig, multiple keys are used to protect an asset as enforced by the rules of the blockchain. This is an optional regime; the other regime is single key. With off-chain multisig, a hardware security module enforces multi-signature quorum authorization before allowing a digital asset’s key to sign some payload or transfer. On-chain multisig presents no particular challenge to regulatory requirements such as exclusive control as long as all keys are controlled by the same legal entity, and arguably the same should be true when the entity has a majority of the required keys in the multisig scheme at hand. Off-chain multisig also presents no particular challenge to the regulatory requirement of exclusive control as long as the off-chain keys are controlled under the same legal entity as well.

Existing offerings available in the market can be broken down into three categories:

- **Self-custody:** In-house or commercial solutions that store and protect digital assets. Building or buying these solutions (both hardware and software) gives owners full control of their holdings; however, with no third-party intermediaries, owners are solely responsible for their assets and may have no recourse to retrieve lost digital assets.
- **Exchange:** Exchanges offer wallets to hold and protect digital assets while making them available for exchange on their trading platforms. As such, these solutions are designed to supplement the core business of the exchanges (*i.e.*, trading) and thus are most appropriate for active traders.
- **Custodian:** Deliver fully managed custody services to institutions that own and trade digital assets. Traditionally, these firms are trust companies chartered by a regulatory body (*e.g.*, the New York Division of Financial Services or the South Dakota Division of Banking) to operate on an institutional scale and are subject to specific regulatory requirements (for infrastructure, governance, and controls).

Key Competitors

Our direct competitors in the custody market will be companies offering solutions tailored to institutions. Broadly speaking, this competition can be segmented into three categories: digital asset exchanges, specialized service providers, and incumbent financial institutions. Within each, the respective category leaders are Coinbase Custody, BitGo, and Bakkt.

²⁰² Beyond custody, multisig can also be used where a user elects to have a fiduciary, lawyer, or some other company hold one of many keys but not necessarily a sufficient number of keys to spend or otherwise control the assets. This is most often used as a backup technique or recovery failsafe.

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Table 45: Overview of Leading Third-Party Digital Asset Custody Providers^{203 204 205 206 207 208 209 210 211}

	Summary	Legal & Regulatory	Pricing / Insurance	Other Notes
Coinbase Custody	Institutional custody arm of Coinbase, Inc.; offers vertical integration with the company's institutional suite of other prime services	Coinbase Custody Trust Company LLC; New York; Approval in October 2018 by NYDFS	50 basis points for custody; \$0 to \$10,000 for implementation; \$1 million minimum; \$255 million insurance	>\$7 billion AUC
BitGo	Digital asset trust and security company founded in 2011	BiGo Trust Company; South Dakota	Personalized for custody; \$100 million for insurance	>\$2 billion in AUC
Anchorage	Digital asset custodian that also provides trading and various asset management services	REDACTED Hold LLC; South Dakota	Not disclosed	Digital asset custody and trading services for institutions
Prime Trust	Financial institution that provides API-driven open banking solutions for exchanges, OTCs, platforms, broker-dealers, and more	Prime Trust LLC; Chartered Trust Company in the State of Nevada	Account fees vary; \$50 fee for funds processing (disbursement)	Traditional custodian that has built a successful digital asset business via strategic partnerships
Kingdom Trust	Specializes in innovative custody solutions and escrow services for both institutions and individuals	Independent Qualified Custodian regulated by the South Dakota Division of Banking	\$20 monthly account fee; \$12.50 holding fee per asset; other small fees	Operates as a custody provider for traditional assets, serving over 100,000 clients and having more than \$12 billion in AUC
Paxos	Digital asset exchange, custodian, stablecoin issuer, and financial infrastructure provider	REDACTED Trust Company LLC; New York; Approval in 2018 by the NYDFS	Personalized	Best known for its tokenized assets (including stablecoin products), digital asset and cash management services, Bank post-trade and settlement solutions
Gemini	Digital asset exchange with institutional custody services	Gemini Trust Company LLC; New York; Approval in 2018 by the NYDFS	40 basis points for custody; implementation fee waived; no minimum; \$125 withdrawal fee; \$200 million for insurance	Custody services auxiliary to exchange and related products
Bakkt	CFTC-approved digital asset trading and custody platform for institutions; Majority owned by Intercontinental Exchange (ICE)	Bakkt Trust Company LLC; New York; Approval in 2019 by the NYDFS	Fee holiday for custody; no minimum; \$125 million for insurance	Bakkt is focused on structured investment products and retail adoption
Fidelity Digital Asset Services	Offers enterprise custody and trading services via an institutional platform	Fidelity Digital Asset Services, LLC; New York; Approval in 2019 by the NYDFS	Not disclosed	Custody product designed in tandem with trading execution platform

²⁰³ See Coinbase, *Custody*, COINBASE.COM, <https://custody.coinbase.com/> (last visited Jun. 6, 2020).²⁰⁴ See BitGo, BITGO.COM, <https://www.bitgo.com/> (last visited Jun. 6, 2020).²⁰⁵ See REDACTED, REDACTED, REDACTED (last visited Jun. 6, 2020).²⁰⁶ See Prime Trust, PRIMETRUST.COM, <https://www.primetrust.com/> (last visited Jun. 6, 2020).²⁰⁷ See Kingdom Trust, KINGDOMTRUST.COM, <https://www.kingdomtrust.com/> (last visited Jun. 6, 2020).²⁰⁸ See REDACTED, REDACTED, REDACTED (last visited Jun. 6, 2020).²⁰⁹ See Gemini, GEMINI.COM, <https://gemini.com/custody> (last visited Jun. 6, 2020).²¹⁰ See Bakkt, BAKKT.COM, <https://www.bakkt.com/> (last visited Jun. 6, 2020).²¹¹ See Fidelity Digital Asset Services, FIDELITYDIGITALASSETS.COM, <https://www.fidelitydigitalassets.com/overview> (last visited Jun. 6, 2020).

Exchange-Affiliated Custody Services: Coinbase Custody

Launched in 2018, Coinbase Custody is regulated by the New York Department of Financial Services (NYDFS) and operates as a standalone, independently-capitalized business and fiduciary under New York state banking laws.²¹² It offers institutional clients access to an offline storage solution that has been used by the company's exchange business since 2012.²¹³ As an exchange-first business, Coinbase has designed its institutional custody solution to balance safekeeping of private keys with easy online client access to holdings, allowing clients to pair the solution with its OTC and Coinbase Pro services for quick access to liquidity. The company also offers some of the broadest and most comprehensive insurance coverage in the industry.²¹⁴ All funds are segregated and held exclusively in cold storage, but the insurance program covers both cold and hot storage of assets held by Coinbase Custody and its affiliates.²¹⁵

In May 2019, Coinbase's CEO, Brian Armstrong, had stated that Coinbase Custody surpassed \$1 billion in assets under custody ("AUC") across 70 institutions over the last 12 months, and adding \$150 million in AUC monthly.²¹⁶ Just a few months later, the company acquired Xapo, a digital asset custodian that had already been in operation for five years. This acquisition brought the company's total assets under custody above \$7 billion, making it the largest digital asset custodian in the world.²¹⁷ The company now holds assets for some of the largest institutions in the digital asset space, including Grayscale Bitcoin Trust.²¹⁸

As part of Coinbase's broader suite of digital asset services, Coinbase Custody is one of the only solutions on the market that has vertical integration with institutional liquidity and trading services. This makes it an attractive option for institutional market participants that are particularly active in the markets for trading in digital assets. In addition, the platform now supports over fifty digital assets—another feature that makes the platform attractive to high-volume traders.

Specialized Custody Services: BitGo

BitGo was launched in 2013 as a specialty provider of custodial services, introducing the industry's first multi-signature wallet product in the same year. Today, the company supports more than 100 digital assets and has more than \$2 billion in assets under custody. It also claims to be the world's largest processor of on-chain bitcoin transactions, processing a reported 20% of all bitcoin transactions and \$15 billion per month across all of the digital assets it supports.²¹⁹ BitGo is backed by venture capital firms including Craft Ventures, DRW, Galaxy Digital Ventures, Goldman Sachs, Redpoint Ventures, and Fowler Equity Partners.

Although BitGo was initially purpose-built for storing digital assets, the company has since shifted its strategic approach to the digital asset market by focusing its efforts on expansion into new product and service lines. The impetus for this shift was twofold: (i) to offset the high technology costs associated with its custody and settlement services, and (ii) to capitalize on the value of the network it had built out via its core custody offering. With over 400 institutional clients (more than 100 of which are exchanges) and an established position in the market as both an agnostic vendor and a leading custodian, BitGo sees a window of opportunity for becoming a single point of entry into the market for institutional investors and has thus been aggressively building toward becoming a prime broker in the space.

²¹² See generally Coinbase, *Custody*, COINBASE.COM, <https://custody.coinbase.com/> (last visited Jun. 6, 2020).

²¹³ *Id.*

²¹⁴ *Id.*

²¹⁵ See generally Coinbase, *Custody*, COINBASE.COM (Jun. 2020), <https://www.coinbase.com/legal/insurance>.

²¹⁶ See Sam Ouimet, *Coinbase Custody Now Has \$1 Billion of Crypto Under Management, CEO Says*, COINDESK.COM (May 15, 2020), <https://www.coindesk.com/coinbase-custody-now-has-1-billion-of-crypto-under-management-ceo-says>.

²¹⁷ See the Coinbase Blog, *Coinbase Custody Acquires Xapo's Institutional Business, Becoming the World's Largest Crypto Custodian*, MEDIUM.COM (Aug. 15, 2019), <https://blog.coinbase.com/coinbase-custody-acquires-xapos-institutional-business-becoming-the-world>.

²¹⁸ See Grayscale Investments Press Release, *Grayscale Selects Coinbase Custody as Custodian*, GLOBENEWSWIRE.COM (Aug. 2, 2019), <https://www.globenewswire.com/news-release/2019/08/02/1896358/0/en/Grayscale-Selects-Coinbase-Custody-as-Custodian.html>.

²¹⁹ See BitGo, *Careers*, BITGO.COM, <https://www.bitgo.com/company/careers> (last visited Jun. 7, 2020).

²²⁰ BitGo has handled more than \$1.1 billion in transactions for Celsius Network. See Celsius Network, *BitGo Confirms over \$1.1 Billion Worth of Celsius Network Transactions*, MEDIUM.COM (Aug. 16, 2019), <https://medium.com/@CelsiusNetwork/bitgo-confirms-over-1-1-billion-worth-of-celsius-network-transactions-59e0eb5b5f9>.

BitGo's product portfolio now includes services for custody, settlement, portfolio management, tax services, lending, staking services, liquidity services, and trading. BitGo's institutional lending service, which launched in March 2020, now has a loan book of \$150 million,²²¹ and it also recently acquired Harbor, a regulated security token platform with subsidiaries that include both a licensed broker-dealer and transfer agent.²²² Additional developments from the last year include:

- May 2019: launch of a clearing and settlement service for institutional clients²²³
- October 2019: acquisition of staking infrastructure provider Hedge²²⁴
- February 2020: partnership with SettleBit offering cross-custodian settlement²²⁵

Custody Market Trends

Several market trends have emerged in recent years that have shaped the direction of this industry.

- A significant uptick in trading volume has made it increasingly important for active investors and traders to have frequent and quick access to their funds. This has created a competitive incentive for providers to offer these features as part of their solutions.
- The emergence of proof-of-stake protocols (which Avanti has no plans to support due to their immaturity) has put extra pressure on custodians to make sure that their clients are able to actively participate in networks via staking and servicing assets.
- The majority of digital asset native custodians are moving toward "value-added custody" product strategies in which they are looking to integrate front, middle, and back office services into their platforms. This push toward expanded product offerings has been at least partially caused by an industry-wide tightening of fees toward an increasingly lower bound.
- This race to the bottom in terms of zero fees has forced digital asset custodians to pursue other opportunities for revenue.
- Many companies have been professionalizing their services to meet potential demand from institutional investors that have not yet entered the market.

Avanti's Competitive Advantages in Digital Asset Custody

Given the current dynamics in the custody market, Avanti sees the following as key competitive advantages that it will be able to leverage at launch:

- Our early-mover position in the market as a bank, recognized under federal and state law,²²⁶ that will also be able to service digital assets should enable us to more easily find ways to strategically partner with companies that would otherwise be direct competitors, given the significant benefits that we could provide on the trading and settlement side of "custody plus" businesses.
- Despite how much the industry and infrastructure of the market has matured in recent years, there is still no agreed upon framework of regulation and law around the issuance, trading, settlement, and custody of digital assets. Consequently, we believe that our target market will prefer to gain market exposure through our superior regulatory-compliant structure, even though we might offer several products and services that are similar to those of competition in this segment.
- We believe that there still is not a truly institutional player in the custody market and that our target market, which is already used to custodizing their traditional financial securities with banks, will look to do the same with their digital assets.
- Lastly, we will benefit from the portability of a bank charter in other states and jurisdictions. We have discussed the portability of an SPDI charter with the Wyoming Division of Banking and have determined that we would be able to do business in approximately 42 states without the requirement to obtain a money

²²¹ See Bradley Keoun, *BitGo Reveals Bitcoin Lending Push; \$150M Booked So Far*, COINDESK.COM (Mar. 5, 2020), <https://www.coindesk.com/bitgo-reveals-bitcoin-lending-push-150m-booked-so-far>.

²²² See Finextra Headline, *BitGo Buys Digital Securities Platform Harbor*, FINEXTRA.COM (Feb. 19, 2020), <https://www.finextra.com/newsarticle/35305/bitgo-buys-digital-securities-platform-harbor>.

²²³ See Nikhilesh De, *BitGo Offers Institutional Clients New Off-Chain Settlement System*, COINDESK.COM (May 14, 2019), <https://www.coindesk.com/bitgo-offers-institutional-clients-new-off-chain-settlement-system>.

²²⁴ See Kiarash Mosayeri, *Announcing BitGo's Staking Services and Acquisition of Hedge*, BITGO.GOM (Oct. 7, 2019), <https://blog.bitgo.com/announcing-bitgos-staking-services-and-acquisition-of-hedge-1b599c686d79>.

²²⁵ See Dan Edelstein, *SettleBit Successfully Completes First API Trade via BitGo Custody*, BLOOMBERG.COM (Feb. 5, 2020), <https://www.bloomberg.com/press-releases/2020-02-05/settlebit-successfully-completes-first-api-trade-via-bitgo-custody>.

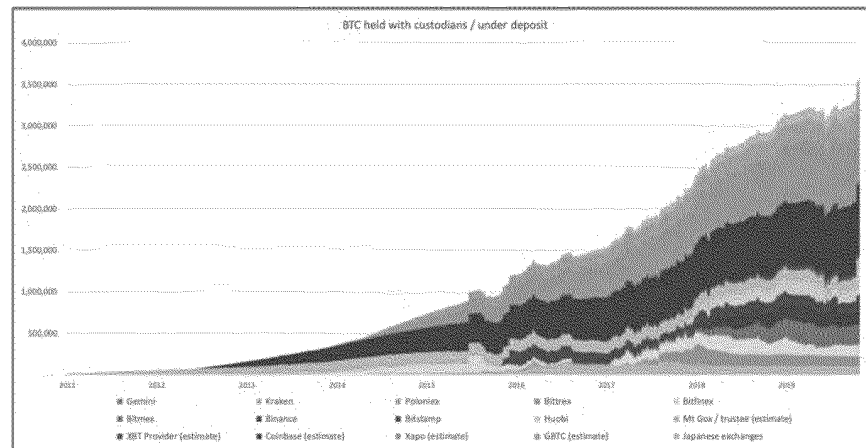
²²⁶ 12 U.S.C. § 1813(a) and Wyo. Stat. § 13-12-101(a)(i).

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transmission license (or open a bank branch). We plan to conduct a thorough state-by-state analysis prior to providing our services in each state.

To compete in the custody market, our strategy will be to charge similar fees but offer better regulatory structure and superior (*i.e.*, institutional quality) standards, including terms and conditions in our contracts.²²⁷ Pricing for custody services varies, but most annualized custody fees are between 20-80 basis points. For example, Coinbase charges 50 basis points annually, in addition to a setup fee (up to \$100,000), and Gemini charges 40 basis points annually, with an additional \$125 for each withdrawal.²²⁸ With a growing amount of digital assets being held with custodians but limited institutional participation to date, we believe that Avanti will be very competitive in this business line.

Table 46: Rapid Growth in Bitcoin Held with Custodians (2011-2019)²²⁹



Prime Services

Avanti is not an exchange and will not operate a trading desk. Rather, we are a fee-based service provider for digital assets, not a trading counterparty that runs a proprietary trading business. Accordingly, the companies mentioned in this Prime Services section are more likely to be partners than competitors (although we both offer on-ramps into digital assets, so could be competitors in bringing new entrants into the market). Most of the companies listed below are possible liquidity providers for Avanti's customers via Avanti's platform, or borrowers of trust assets that Avanti's customers direct us to lend on their behalf. Again, Avanti merely matches buyers and sellers (and, eventually, borrowers and lenders) for a fee.

Background: Digital Asset Market Structure

The emergence of digital assets as a new investment class, coupled with growing institutional interest, has motivated industry players to provide services related to digital assets to adapt to institutional use and to develop infrastructure solutions that serve to bridge what has historically been a fragmented market structure.

This push to meet current and potential institutional demand has resulted in a consolidation of the industry around prime services, not only for custody but also for trading, settlement, and related services.²³⁰ Since last year, both

²²⁷ For example, Avanti's SPDI charter would likely attract a portion of these customers that are looking for protections beyond those provided by a typical trust company, including better legal protections and superior status in the event of insolvency (via bailment and the requirement under Wyoming law to provide specified customer protections in customer agreements). For example, Wyoming law requires specific disclosure for distributions of value called forks and airdrops and, in one case, requires the custodian to obtain prior customer consent for a particular type of fork that changes the fundamental contract term. *See* Chapter 19, *supra* note 5, § 5(e).

²²⁸ *See* Coinbase, *Custody Pricing*, COINBASE.COM, <https://custody.coinbase.com/pricing> (last visited Jun. 7, 2020).

²²⁹ Nic Carter, *A Crypto Banking Reality Check*, BANKLESS (Jan 9, 2020), <https://bankless.substack.com/p/a-crypto-banking-reality-check>.

²³⁰ *See* Ryan Todd, *The Race to Become the First Digital Asset Full Prime Broker is On*, THEBLOCKCRYPTO.COM (May 21, 2020), <https://www.theblockcrypto.com/genesis/66095/the-race-to-become-the-first-digital-asset-full-prime-broker-is-on>.

incumbent providers and new entrants have started to develop and adapt their product offerings to build themselves into prime brokers. Recent headlines include:

- November 2019: Fidelity Digital Asset Services, which had initially entered the digital space with its institutional custody solution, announces regulatory approval for its trading execution platform, which will allow it to provide custody clients with trading services and access to direct liquidity across exchanges.²³¹
- November 2019: Copper opens up its walled garden infrastructure to allow its custody clients to trade across fifteen of the biggest digital asset exchanges.²³²
- January 2020: [REDACTED] rolls out [REDACTED] Trading, an institutional trading platform integrated into its custody offering.²³³
- February 2020: BitGo acquires Harbor, which had previously become the first blockchain company to be granted both a broker-dealer license and a transfer agent license.²³⁴
- April 2020: BitGo acquires Lumina, a tax reporting and portfolio management tool.²³⁵
- May 2020: BitGo introduces BitGo Prime just weeks after its acquisition of Lumina to now offer custody, lending, trading, and tax management services.²³⁶
- May 2020: Coinbase announces its acquisition of Tagomi to expand its offerings to offer custody, professional trading features, and prime brokerage services on one platform.²³⁷

As shown above, many aspiring digital-asset prime brokers started off with providing custody services; however, both digital asset exchanges and execution providers have been growing and fortifying their own prime services offerings as well. Several recent examples in this category include:

- May 2020: FalconX, an institution-facing liquidity aggregator announced its \$17 million raise to expand its digital asset trading services²³⁸
- May 2020: Coinbase announces its plans to acquire prime brokerage platform Tagomi²³⁹
- May 2020: Genesis Trading purchases VoIt, a digital asset custodian, to bring custody services into its pre-existing product portfolio of trading and lending services²⁴⁰

Despite all this recent activity, however, many barriers still exist for institutional investors that wish to get exposure to digital assets but are not used to navigating a nascent and still largely unregulated market.

At present, institutional investors (and particularly those who are not heavily involved with digital assets) have three main options to choose from for trading: OTC firms; digital asset exchanges; and prime brokerage services. In the US, the leading providers in each category include:

- OTC Desks: Cumberland DRW, Genesis Capital, Jump Trading, Alameda Research (FTX)
- Exchanges: Coinbase, Gemini, Binance.US, [REDACTED] Bakkt

²³¹ See Arlene Roberts, *Fidelity Moves to Establish New Digital Asset Business Supporting European Institutional Investors*, BUSINESSWIRE.COM (Dec. 17, 2019), <https://www.businesswire.com/news/home/20191217005548/en/Fidelity-Moves-Establish-New-Digital-Asset-Business>.

²³² See Mark Walker, *Copper Covers 96% of the Crypto Market After Walled Garden Expansion*, THEFINTECHTIMES.COM (Nov. 29, 2019), <https://thefintechtimes.com/copper-crypto/>.

²³³ See Danny Nelson, [REDACTED] Moves Into Crypto Trading With New Brokerage Service, COINDESK.COM (Jan. 15, 2020),

[REDACTED]
²³⁴ See Nikhilesh De, *BitGo Acquires Harbor in Surprise Expansion Beyond Crypto Custody*, YAHOO.COM (Feb. 18, 2020), <https://finance.yahoo.com/news/bitgo-acquires-harbor-surprise-expansion-183106421.html>.

²³⁵ See Official BitGo Blog, *BitGo Acquires Lumina*, BITGO.COM (Apr. 16, 2020), <https://blog.bitgo.com/bitgo-acquires-lumina-94358bc3f390?gi=6ee1dcc16be2>.

²³⁶ See Nikhilesh De, *Crypto Custodian BitGo Joins Race to Provide Prime Brokerage Service*, COINDESK.COM (May 27, 2020), <https://www.coindesk.com/crypto-custodian-bitgo-joins-race-to-provide-prime-brokerage-services>.

²³⁷ See The Coinbase Blog, *Coinbase to Acquire Leading Institutional Crypto Brokerage, Tagomi*, MEDIUM.COM (May 27, 2020), <https://blog.coinbase.com/coinbase-to-acquire-leading-institutional-crypto-brokerage-tagomi-50558d41eef2?gi=fb9a2175acdf>.

²³⁸ See Alex Wilhelm, *FalconX Raises \$17M to Power Its Crypto Trading Service*, TECHCRUNCH.COM (May 13, 2020), <https://techcrunch.com/2020/05/13/falconx-raises-17m-to-power-its-crypto-trading-service/>.

²³⁹ See The Coinbase Blog, *Coinbase to Acquire Leading Institutional Crypto Brokerage, Tagomi*, MEDIUM.COM (May 27, 2020), <https://blog.coinbase.com/coinbase-to-acquire-leading-institutional-crypto-brokerage-tagomi>.

²⁴⁰ See Nathan DiCamillo, *Genesis Trading Buys Crypto Custodian VoIt in Bid to Become Prime Broker*, COINDESK.COM (May 21, 2020), <https://www.coindesk.com/genesis-trading-buys-crypto-custodian-volt-in-bid-to-become-prime-broker>.

- Prime Brokerages: Tagomi, [REDACTED] SFOX

Given Avanti's institutional focus, we will more often utilize OTC providers for liquidity rather than exchanges. OTC trading is generally used to facilitate large (\$50k+) orders, and multi-million-dollar trades are a common occurrence. A major advantage of trading with an OTC provider over an exchange is the ability to avoid price slippage as these transactions do not settle through an exchange order book. It is possible to trade large amounts with exchanges; however, it would likely be necessary to split an order into several smaller orders across multiple exchanges.

The OTC Market & Prime Brokerages

There are two types of OTC businesses:

- Principal model: The OTC desk uses its own funds to fulfill the customer's order, causing the desk to assume market risk until it can source the assets needed to offload the order. The desk earns a profit from the bid-ask spread.
- Agency model: The OTC desk charges a fee to match a buyer and a seller, serving as a middleman and thus avoiding any market risk.

Because liquidity was limited in 2015 and 2016, the OTC business was extremely profitable, as OTC desks were able to command wide bid-ask spreads on trades. That profitability led to an increase in market entrants over the next few years, including in the form of new OTC services by several of the largest international exchanges. In 2019, Binance launched its first OTC desk, along with new services announced by Bittrex, Poloniex, and Huobi.²⁴¹ Most of the major U.S. exchanges have also started to offer OTC services, including Coinbase, [REDACTED] and Gemin i. Today, the largest OTC providers include Jump Trading, Genesis, and Cumberland DRW.

OTC providers, however, largely deal in a business-to-business fashion and do not provide many direct services to individual customers. For institutional customers, it is common to use a trading intermediary or brokerage service. Brokerage services allow customers to purchase and/or sell digital assets at a given price, as they simply pass through OTC execution. As noted in Section 2 of this business plan, in year one, Avanti intends to offer custody services to its customers. The market advantage of Avanti's product and services offering is the ability to provide more efficient execution and enhanced protection due to its ability to settle the U.S. dollar component of the transaction without the involvement of a third party.

Tagomi and SFOX are two of the leading digital asset prime brokers. Tagomi combines trade execution technology with settlement and custody services to provide clients with access to a network of digital asset exchanges and OTC markets through a single account. The company also offers other digital asset services, including staking and governance. Fees are based on a tiered schedule that ranges from 0.10% to 0.00% based on total volume traded over a 30-day period and type of venue (exchanges and OTCs or electronics OTCs only). Rates for staking and governance range from 30 basis points down to 10 basis points and vary by asset and amount.²⁴²

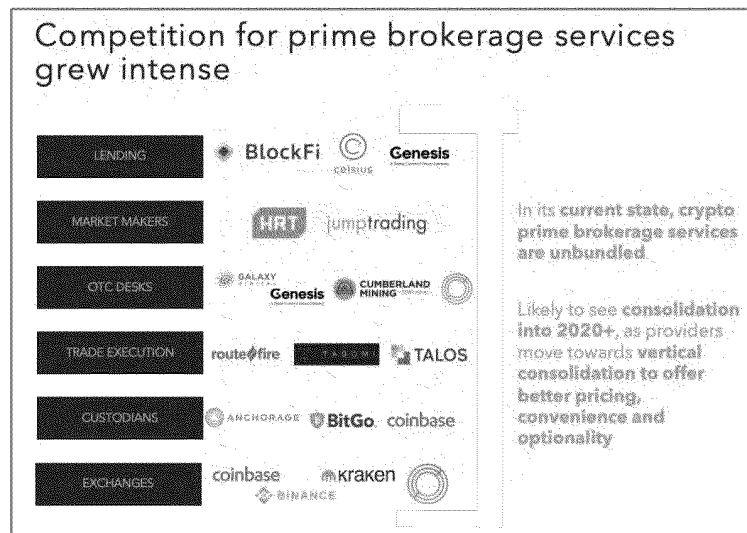
SFOX provides an execution platform for banks, payment providers, and institutions to trade in digital assets. The company sources liquidity from digital asset exchanges, OTC markets, and their existing network of customers. SFOX is the counterparty for all trades and has insurance. In terms of treasury management, the company holds cash and digital assets with each exchange. They charge transaction fees, which range from 25 to 75 basis points depending on the type of order and have facilitated over \$11 billion in trading volume to date.²⁴³

These companies, as discussed above, are competing with a growing number of other providers in the industry that are also looking to develop their own prime brokerage product stacks.

²⁴¹ See Joseph Birch, *Major Crypto Exchanges Launch OTC Desks Despite the Crypto Winter*, COINTELEGRAPH.COM (Feb. 11, 2019), <https://cointelegraph.com/news/major-crypto-exchanges-launch-otc-desks-despite-the-crypto-winter>.

²⁴² See Tagomi, *Fees*, TAGOMI.COM, <https://tagomi.com/fees/> (last visited Jun. 7, 2020).

²⁴³ See SFOX, *Simple Pricing, Superior Returns*, SFOX.COM, <https://www.sfox.com/pricing/> (last visited Jun. 7, 2020).

Table 47: Prime Services Market for Digital Assets Is Consolidating²⁴⁴

Although prime services provide a trading solution for institutional clients, they do not address the core issues and inefficiencies associated with OTC transactions. Avanti intends to alleviate many of the issues market participants are facing today with OTC trading services. Most importantly, Avanti will be able to mitigate settlement risk. With the current trading process and procedures, although parties may be contractually obligated to a trade, there can be no guarantee that, in respect of that trade, the relevant asset will be delivered or that the money will be paid. Each side prefers to settle second, placing one-sided risk with the first party to settle. Additionally, many OTC providers do not provide an in-house custody solution (or provide a limited service if they do), requiring yet another intermediary to be involved in a transaction.

It is also important to note that the U.S. digital asset market currently lacks integration across banks, custodians and exchanges. This offers Avanti an early-mover advantage in that it would enter the market as a Wyoming SPDI—a regulated bank capable of offering deposit services, custody and other prime services to institutional customers, and providing institutional-quality customer agreements and technology solutions. In addition, we believe that our status will give us a strong competitive position in the institutional market as an attractive entity for other prime services providers to partner with, since we will be able to offer payment, banking, and fiat on/off ramp solutions.

Avanti's Competitive Advantages in Prime Services

Avanti will avail itself of the following advantages and utilize the following strategies to operate a competitive solution for institutional trading:

- Since Avanti will be able to clear its own wires and ACH transfers directly with the Federal Reserve, it will be able to reduce the high costs traditionally associated with exchanges between fiat and digital assets.
- Avanti will control the exchange between fiat and digital assets, so Avanti customers will not need an additional banking relationship.
- Many traditional investors are used to going to an intermediary that aggregates liquidity and gives them the market on a screen (which also gives the added benefit of price discovery). Since this sort of service is not available in today's OTC markets for digital assets and Avanti will provide it (as broker between customers and multiple liquidity providers), we believe that our target customers will prefer to utilize the Avanti platform over OTC liquidity providers.
- The initial focus of our business lines will be bitcoin, which is by far the digital asset most demanded by traditional fiduciary institutional investors (albeit still small today). Our focus on meeting buy-side needs

²⁴⁴ Blockchain Capital, *State of Crypto 2019* at 56 (published Jan. 2020), <https://blockchain.capital/wp-content/uploads/2020/01/Blockchain-Capital-2019-Year-in-Review.pdf>.

rather than sell-side desires means Avanti will not be as distracted by the extensive menu of digital assets that companies like Tagomi, BitGo, and [REDACTED] are competing to service.

- Our strategy to partner with liquidity providers instead of operating our own trading book should serve to limit our competitive exposure to this vertical, which is one that we believe will only get more competitive as additional players, and especially established institutional ones, enter the liquidity provisioning market.

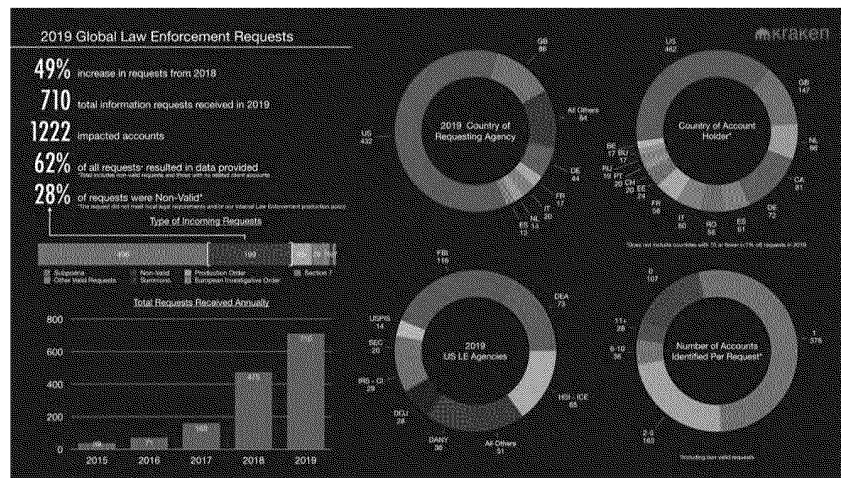
Competitive Summary

- We believe that a U.S. bank would be the optimal regulatory-complaint structure for providing institutional-grade services and infrastructure around digital assets. As one of the first such banks, and one subject to the higher customer protections of Wyoming's laws, Avanti would have an early-mover advantage.
- In the Bitwise 2020 Benchmark Survey Study of financial advisor attitudes toward digital assets (which included 415 RIAs, independent broker-dealer representatives, financial planners, and wirehouse representatives), better regulations (58%) and better custodial solutions (42%) were the top two answers for the question "What would make you more comfortable allocating to digital assets in the future?" This bodes well for Avanti, as these will be two of our strongest areas.
- The U.S. lacks integration in the digital asset market across banks, custodians and exchanges. This offers Avanti an early-mover advantage because it would be a regulated bank capable of offering both deposit services and custody services within the same legal entity.
- Non-depository trust companies, which we view as our primary competition in the digital asset custody market, do not employ any direct connection with the Federal Reserve through a Master Account.²⁴⁵ There are no depository trust companies involved in the digital asset space.
- Trust companies generally have much lower capital requirements than banks. South Dakota trust companies, for example, are required to only have a minimum capital of \$200,000.²⁴⁶ Banks, on the other hand, have more robust capital requirements, including under Wyoming law.
- [REDACTED] is the closest to vertical integration. [REDACTED] is applying to the State of New York to obtain a license for a trust subsidiary, which would allow it to custody digital assets via the subsidiary but would not enable it to offer delivery-versus-payment because the two services (banking and custody) are not settled within the same legal entity.
- Our strategy is to work with high quality intermediaries, counterparties, and vendors whereby we can provide the best regulatory, security, operational, and technical infrastructure for institutional participation in the market.

²⁴⁵ See Federal Reserve, *Banks Operating Circular 1: Account Relationships* (Effective Feb. 1, 2013), <https://www.frb-services.org/assets/resources/rules-regulations/020113-operating-circular-1.pdf>.

²⁴⁶ See Codified Laws, South Dakota Legislature, *Chapter 51A-6A-19* at: https://sdlegislature.gov/Statutes/Codified_Laws/DisplayStatute.aspx?Type=Statute&Statute=51A-6A-19.

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Table 48: The Importance of Regulatory Compliance in Digital Asset Industry²⁴⁷

Customer Acquisition Strategy

We believe Avanti's unique regulatory structure will attract customers without requiring much outbound marketing, which is consistent with our experience so far. Avanti has been the subject of numerous incoming inquiries based on press coverage, including pieces written by Forbes and Coindesk (Coindesk is generally regarded as one of the primary news sources for the digital asset space). Avanti was recently highlighted in Coindesk's selection of business highlights of 2020, taking the 33rd spot in The Coindesk 50.²⁴⁸ We have also received inbound from Fortune 500 companies that have followed Avanti's progress and are interested in discussing potential strategic arrangements. As an example, a large auto manufacturer had reached out to discuss payment efficiency within its supply chain by utilizing an Avit-like instrument issued by Avanti.

Additionally, Avanti's executive team has a robust network within the traditional and digital asset target customer bases. We plan to be actively engaged with institutional investors and attend corporate treasury conferences to drive user acquisition.

We do not anticipate a large marketing spend but have projected modest levels of marketing-related expenses in our financial projections, which will include conference attendance and sponsorships, website advertising, and marketing collateral. Business development, which will be headed by Avanti's Chief Executive Officer and Chief Operating Officer, will also be crucial in obtaining large customer accounts.

On the strategic partner front, we have been thoughtful in aligning ourselves with strategic equity investors and partners that have expressed interest in assisting with new customer acquisition. For example, the lead investor in Avanti's angel round was the University of Wyoming Foundation. They have historically been helpful in facilitating introductions to other endowments and plan to continue making new introductions as we get closer to our launch date. A co-founder of another seven-figure investor in Avanti's angel round, Mark Yusko of Morgan Creek Digital, is also widely recognized among institutional investors (especially university endowments) and is helping Avanti by making introductions for new customers and for raising funds in our Series A round.

In addition, a few blockchain-focused funds, such as Digital Currency Group and Blockchain Capital, invested in our angel round. Both Digital Currency Group and Blockchain Capital are well known in the blockchain industry and each has one of the largest portfolios of companies in the space. Each of their portfolio companies are potential Avanti customers.

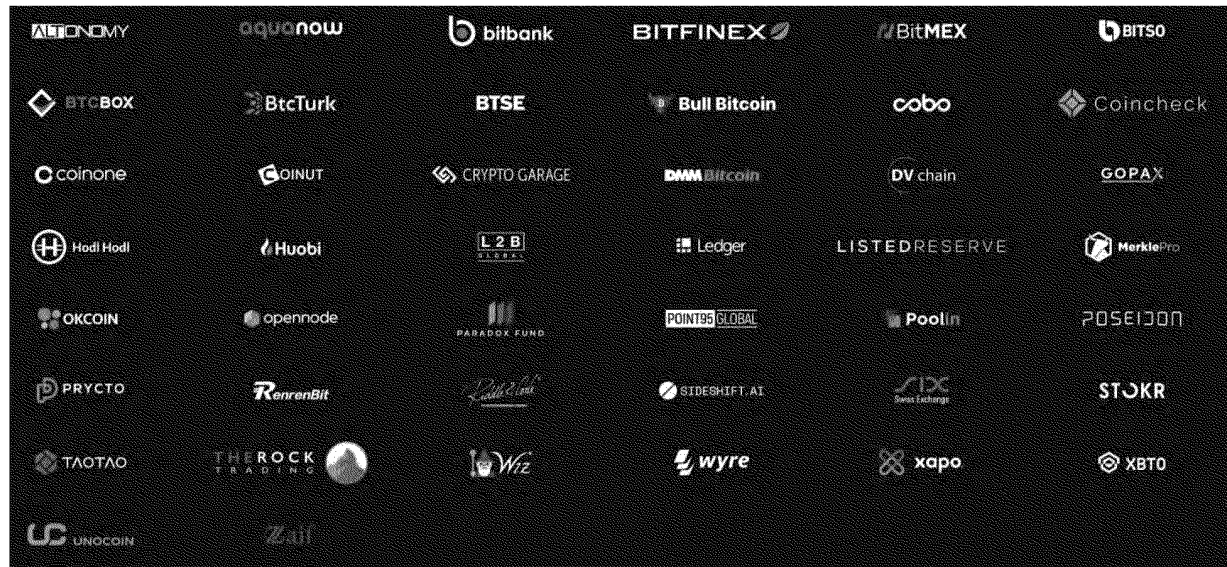
²⁴⁷ Marie Huillet, *Law Enforcement Requests to [REDACTED] Hit All-Time High, Up 49% in 2019*, COINTELEGRAPH.COM (Jan. 7, 2020), [REDACTED]

²⁴⁸ See Coindesk's *The Coindesk 50*, COINDESK.COM (Jun. 2020), <https://www.coindesk.com/the-coindesk-50>.

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Lastly, we have a close and ongoing relationship with Blockstream,²⁴⁹ and they have communicated their willingness to distribute Avanti materials to members of the Liquid network, which includes a majority of the liquidity providers in the digital asset industry. They have also agreed to introduce Avanti to their own investor network, which includes well known firms such as AXA Strategic Ventures and Khosla Ventures. As of May 2020, there are 44 members of the Liquid network across exchanges, trading desks, brokerages, digital wallets, payments, and infrastructure verticals.

Table 49: Mapping The Digital Asset Industry: Liquid Network Members²⁵⁰



5. Management Plan: Directors and Officers

Avanti has been able to build a management team of exceptional quality and experience, bringing together a group of talented individuals with proven abilities in developing and leading highly regulated institutions across the traditional financial services, enterprise blockchain industry and digital asset industries. All five of Avanti's executives have significant experience and expertise working for regulated financial institutions, and four of the five also have deep experience in digital assets. Our chief banking officer has approximately 20 years of banking experience, most of which has been at the executive level in various Wyoming community banks. Each of Avanti's BSA officer and Avanti's senior system administrator is highly experienced and has expertise developed at Wyoming community banks. Another adviser to the Avanti team is a commissioned federal bank examiner and recently retired Manager of the Mergers and Acquisitions section of the Supervision and Regulation Division of the Board of Governors of the Federal Reserve System, who has over 30 years of bank regulatory experience. Finally, Avanti's Board of Directors includes two directors who have prior experience as directors of three banks.

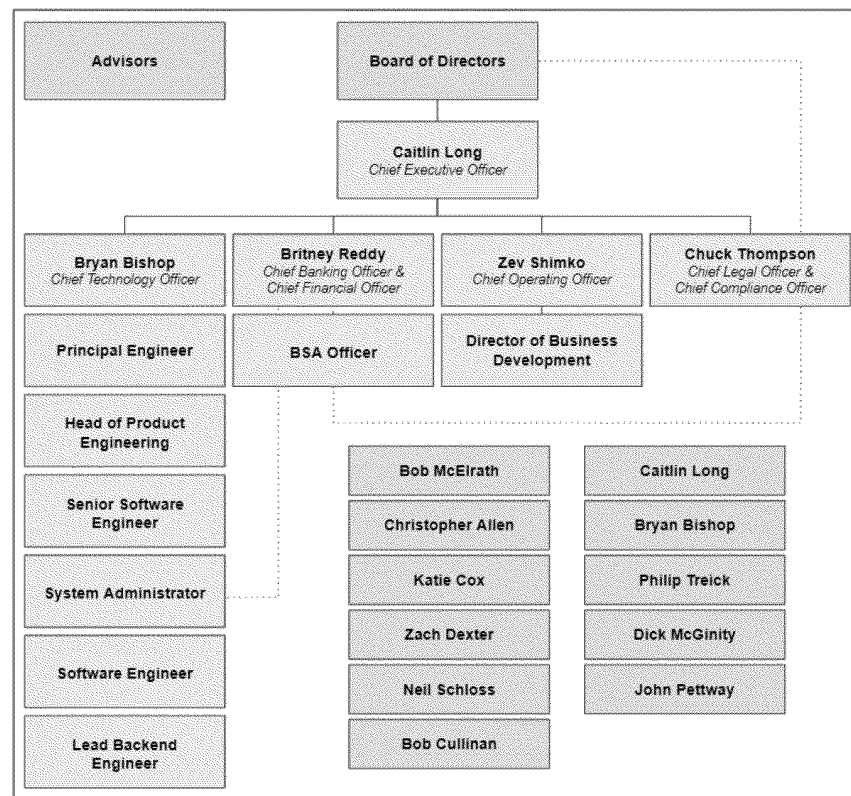
In other words, Avanti has assembled a team highly capable of building a secure and compliant bridge between the traditional banking system and digital assets. Avanti is confident that this team can build, open, and effectively manage the Bank in a safe, sound, compliant, and prudent manner that will accomplish the objectives in this Business Plan and meet regulator and stakeholder expectations.

²⁴⁹ Blockstream is considered a global leader in bitcoin and blockchain technology and is one of the most highly regarded technical companies in the industry.

²⁵⁰ Blockstream, *Liquid*, BLOCKSTREAM.COM (Last visited Jun. 6, 2020), <https://blockstream.com/liquid/>.

Management Structure and Duties

Table 50: Avanti Organizational Chart as of 9/1/2020



Directors (two Avanti executives, three independent):

1. **Caitlin Long**—Caitlin has extensive experience in regulated financial institutions as well as digital assets. As a Managing Director at Morgan Stanley in New York, she ran its pension solutions and corporate strategies groups and was president of its U.S. life insurance subsidiary. Prior to that she held officer and director positions in two Bermuda reinsurance subsidiaries of Credit Suisse Group, and reported directly to the co-CEOs of Credit Suisse (John Mack and Ossi Grübel) to execute the restructuring of its insurance subsidiary, Winterthur Group, in Zurich. Active in bitcoin and blockchain since 2012, she volunteered in her native state of Wyoming to help enact legislation to define the legal status of digital assets and make Wyoming a welcoming jurisdiction for the industry. From 2016-18 she jointly spearheaded a blockchain project for delivering market index data to Vanguard as chairman and president of Symbiont, an enterprise blockchain start-up. She is a graduate of Harvard Law School (JD, 1994), the Kennedy School of Government (MPP, 1994) and the University of Wyoming (BA, 1990).
2. **Bryan Bishop**—A Bitcoin Core developer²⁵¹, Bryan was previously senior blockchain engineer and custody architect of LedgerX, the first CFTC-regulated options exchange and clearinghouse for digital assets, from 2014-2018. He subsequently created Bitcoin Vaults,²⁵² a prototype for pre-signed anti-theft recovery and

²⁵¹ A Bitcoin Core developer is someone who contributes to the Bitcoin Core software. Note that anyone can become a contributor, however Bryan has had the privilege of being invited to the Bitcoin Core developer meetings since 2015 where he has provided technical feedback, review, and public transcripts for critical non-public meetings. List of Bitcoin Core contributors can be found at: <https://bitcoin.org/en/development#code-review>.

²⁵² See Brady Dale, *Bitcoin Vaults: Developer Bryan Bishop Releases Prototype for Secure On-Chain Storage*, COINDESK.COM (Apr. 13, 2020), <https://www.coindesk.com/bitcoin-vaults-developer-bryan-bishop-releases-prototype-for-secure-on-chain-storage>.

- clawback mechanism for bitcoin to explore new custody techniques. He has significant prior software engineering experience and has worked on numerous open-source software projects.
3. **Dick McGinity**—Independent Director. Dick is President Emeritus of the University of Wyoming and Professor of Management in its College of Business. Prior to joining UW's faculty in 2007, Dick was a general partner in a Boston-based venture capital fund before starting his own investment banking firm in 1986. He has served on the board of directors of numerous privately-owned and publicly traded companies, including two banks—Marine Corporation (acquired by BancOne) and Castle Bank Group (acquired by First National of Omaha). Dick previously served on the research faculty at Harvard Business School. He holds a BA from Princeton, an MBA and a DBA from Harvard, and was deployed three times to Vietnam as a Naval Aviator.
 4. **John Pettway**—Independent Director. A CPA and an attorney, John has been principal, chief financial officer and general counsel of High Plains Investments, LLC from 1994 to present, and manager of The Haverford Group, LLC, an investments Company in Park City, Utah, since October 1998. One of three principals responsible for making all investment decisions, John specializes in complex real estate transactions, start-up technology companies, internet-based retailers, banking and insurance. He has served as a director of numerous entities, including two that were publicly traded (Overstock.com Inc. and Eldorado Bancshares Inc.).
 5. **Philip Treick**—Independent Director. Philip is chief investment officer of the University of Wyoming Foundation and serves on Avanti's board of directors in the seat that represents angel round investors. Named one of the top small-cap equity portfolio managers in the U.S. while a portfolio manager at Transamerica in San Francisco from 1988-1999, Philip co-managed his own investment firms before returning to his native Wyoming in 2016, where he has taught at the UW's College of Business. He is Managing Partner of Thermopolis Partners and previously launched real asset funds at RAEIF, in affiliation with Stephens Investment Management, from 2010-2016, and chaired Real Assets Equity Strategy at Tocqueville Asset Management from 2016-2018.

Executives:

1. **Caitlin Long** (Chief Executive Officer)—See above.
2. **Bryan Bishop** (Chief Technology Officer)—See above.
3. **Britney Reddy** (Chief Banking Officer & Chief Financial Officer)—Britney has over 20 years of experience serving in many different executive roles at Wyoming community banks, including Chief Executive Officer, President, Chief Technology Officer and Chief Operating Officer, Chief Compliance Officer and Chief Financial Officer. She has extensive experience with bank operations, bank financials, and core banking software providers, with whom she has designed and implemented multiple for traditional banks. Britney has spent the majority of her career in banks supervised by the Wyoming Division of Banking. She holds an M.S., a B.S., and a B.A. from the University of Wyoming.
4. **Zev Shimko** (Chief Operating Officer)—Zev was formerly a director at Figure Technologies, focusing on its enterprise blockchain efforts, and before that he headed corporate development at SALT, a crypto-backed lender. He also worked at two marketplace lenders, helping to establish a securitization program and pipeline of institutional investors. Zev started his career at Morgan Stanley in global capital markets, where he was promoted as part of its STAR program and where he and Caitlin worked together. Zev holds a B.S. from Northeastern University.
5. **Chuck Thompson** (Chief Legal Officer & Chief Compliance Officer)—Chuck was CEO of Blockchain Consulting LLC and was chief compliance officer of LedgerX, where he worked with Bryan Bishop. Before that, he was in-house counsel at capital markets firms, including Morgan Stanley, and practiced law at Cleary, Gottlieb, Steen & Hamilton and Shearman & Sterling. Chuck holds a J.D. from the University of Illinois and a B.A. from Miami University.

Advisers:

1. **Christopher Allen**—Christopher is a pioneer in internet cryptography and co-author of the TLS security standard, the cryptographic protocol that secures most of the internet's traffic today. He is an entrepreneur and technologist who specializes in collaboration, security, and trust. Christopher's recent emphasis has been on engines of trust such as blockchain, smart contracts, and smart signatures, in particular decentralized self-sovereign identity. Christopher is founder of Blockchain Commons, co-chair of the W3C Credentials community working group on standards for decentralized identity, and a former principal architect at Blockstream.

2. **Katie Cox**—Katie has over 30 years of bank regulatory experience. Most recently, as Manager of the Mergers & Acquisitions Section of the Board of Governors of the Federal Reserve System from 2010-2020, she was a key official responsible for mergers and acquisitions of banks within the Federal Reserve System. During her career, she presented policy setting bank mergers and acquisition proposals to numerous chairs of the Federal Reserve System. She also was a key developer of Federal Reserve System guidance, including SR13-7 State Member Bank Branching Considerations and SR 14-2 Enhancing Transparency in the Applications Process.
3. **Bob McElrath**—Bob most recently was the lead blockchain architect at Fidelity Digital Assets, which is the digital asset subsidiary of Fidelity Investments, where he built a secure, regulatory-compliant platform for custody of Bitcoin and related services. Prior to that, he was Chief Scientist and Chief Technology Officer of Vida Identity, a senior software engineer at Bloomberg, LP., and senior coin developer at Ribbit Rewards. Bob earned a PhD in theoretical particle physics from the University of Wisconsin. He completed a fellowship at CERN and post-docs at UC-Davis and the University of Heidelberg.
4. **Zach Dexter**—Zach is co-founder and CEO at LedgerX, a CFTC-regulated bitcoin derivatives exchange and clearinghouse. Previously, as LedgerX's CTO, Zach was responsible for building the institutional trading platform from the ground up, and was instrumental in the company's regulatory application processes. Prior to rejoining LedgerX, Zach led backend, ecommerce and data engineering at MIRROR, a high-growth New York City-based fitness startup. Zach holds a BA in Computer Science from the University of North Carolina at Chapel Hill.
5. **Neil Schloss**—Neil Schloss is the former treasurer of Ford Motor Company and former chief financial officer of Ford Mobility. Neil retired in December 2018 after a 36-year career at Ford and is currently serving as a director of BNP Paribas US, Inc. and Karamba Security (a smart mobility company). He is also an adviser to OurCrowd (a venture capital fund). Neil became interested in Bitcoin in 2014 and asked Caitlin to do a teach-in about it to Ford's treasury staff that year about ways it could help improve treasury efficiency.
6. **Bob Cullinan**—Bob is the former director of treasury systems of Ford Motor Company. He has forty-nine years of experience as an information technology professional in the automobile and captive finance businesses including executive leadership roles as director for global treasury, finance and accounting, and management information systems. Bob has also held senior level international positions located in the United Kingdom responsible for European captive finance application development.

Key Management Responsibilities

1. Chief Executive Officer
 - Build Avanti's team
 - Set Avanti's strategy
 - Raise sufficient equity capital to meet Avanti's capitalization targets
 - Oversee Avanti's budget
 - Drive Avanti's revenue by setting product priorities and selling them to customers
 - Communicate regularly with Avanti's board of directors about all business issues
 - Lead external communications to build Avanti's brand
 - Communicate with regulators, as appropriate
2. Chief Technology Officer
 - Build and develop Avanti systems, applications, products and networks
 - Lead the engineering team
 - Oversee and manage the ongoing development and testing activities for Avanti applications and products
 - Create information security program and technology plan
 - Develop and maintain the overall Avanti system architecture and plan
 - Build out robust custody offering appropriate for the institutional market
3. Chief Banking Officer and Chief Financial Officer
 - Build out traditional banking operations leveraging banking core software
 - Maintain financial records and lead activities related to accounting/financial audits
 - Manage ongoing banking operations including personnel
 - Manage activity related to employee payroll
 - Assist the CCO in regulatory compliance management of banking regulations
 - Manage third party vendor management
 - BSA/AML management

- Risk analysis and management
- 4. Chief Operating Officer
 - Define product offering and strategy for market penetration
 - Lead customer acquisition efforts
 - Build and define business development strategy
 - Find and manage strategic partnerships, such as digital asset liquidity providers
 - Lead onboarding of new employees
- 5. Chief Legal Officer and Chief Compliance Officer
 - Advise executive, senior management and board on various matters
 - Manage legal matters and ensure Avanti's strict adherence to applicable laws and regulations
 - Promulgate and create directives of corporate acts and decisions
 - Handle statutory filings, such as licensing forms
 - Protect Avanti from internal and external compliance and legal related issues
 - Create and maintain robust compliance policies and procedures
 - Compliance strategy and management (including BSA/AML management)
 - Risk analysis and management

Management Committees

The Board of Directors will meet monthly at a regularly scheduled board meeting. The following committees will be incorporated into the monthly board meeting. All Directors will be included in each committee.

1. Digital Asset Committee
2. Audit/Risk Committee (non-executive Directors only; majority Independent Directors)
3. Information Technology Committee
4. BSA/AML Committee
5. Executive Committee

All directors will be members of the Digital Asset Committee, and Zev Shimko will serve as its management liaison (non-voting) in his capacity as Avanti's Chief Operating Officer.

All directors will be members of the Audit Committee. Its chair will be John Pettway, who is a CPA and attorney and who has previously served as a director of a bank that was publicly traded (Eldorado Bancshares Inc.). Britney Reddy, Avanti's Chief Banking Officer and Chief Financial Officer, will serve as its management liaison (non-voting), and Katie Cox, adviser and retired 30-year bank examiner who most recently served as Manager of the Mergers & Acquisitions Section of the Board of Governors of the Federal Reserve System from 2010-2020, will be an observer (non-voting).

All directors will be members of the Information Technology Committee, and Bryan Bishop, Avanti's Chief Technology Officer, will serve as its management liaison. As a director, he will be a voting member of the Committee.

All directors will be members of the BSA/AML Committee, and Chuck Thompson will serve as its management liaison (non-voting) in his capacity as Avanti's Chief Compliance Officer, Chief Legal Officer and Secretary of Avanti.

All directors will be members of the Executive Committee, and Caitlin Long will serve as its management liaison in her capacity as Avanti's Chief Executive Officer. As a director, she will be a voting member of the Committee.

Management Succession Plan

We have identified staffing contingency assignments for each management position in the event one of Avanti's executives is unable to perform his or her duties for any reason, including departure from the company.

Avanti has designed the technology/engineering team for redundancy by instituting a communication system that allows all team members to know what each is working on. For the production platform, all source code will be reviewed by at least one other member of the team before being deployed, and the deployment policy will require at least two engineers or individuals involved in the sign off before deployment is executed.

The internal legal and compliance teams will have redundancy and support from outside counsel, consultants and compliance third-party vendors.

The CFO has redundancy and support from outside consultants, accountants and auditors, and the CEO and CFO both have access to banking accounts and financials.

Avanti intends for a designee to perform additional functions only on an interim basis, until a suitable permanent replacement is appointed by the Board of Directors. The primary designee for each management position is as follows:

1. **Chief Executive Officer:** Chief Operating Officer with support from Chief Legal Officer
2. **Chief Technology Officer:** Principal Engineer with support from Head of Product Engineering
3. **Chief Banking Officer and Chief Financial Officer:** Chief Legal Officer with support from the BSA/AML Officer and the Chief Operating Officer
4. **Chief Operating Officer:** Chief Executive Officer with support from Director of Business Development and Chief Banking Officer
5. **Chief Legal Officer and Chief Compliance Officer:** Chief Banking Officer with support from Chief Executive Officer and outside counsel

In the event that it becomes necessary for a primary designee to take responsibility for a role, Avanti intends to provide support for such designee, including in the form of relevant and helpful resources such as online training, outside consultants, and additional hiring, until such time as the Board of Directors is able to secure a suitable permanent successor for that role. Because Avanti is capable of being staffed on a remote basis, and as a result of its unique combination of traditional banking and technology, we do not anticipate any difficulty finding a successor for any executive role. We have already had a great deal of inbound inquiries, and the business is not yet even live.

Entity Information²⁵³

Avanti Financial Group, Inc. is the only legal entity in our corporate structure today. We have applied to do business under the name Avanti Bank & Trust and plan to begin using this name after charter approval. We do not plan to form additional legal entities unless required by law or regulation in any state in which we plan to do business (such as New York, which may require that we establish a local branch).

Capital Structure

All capital stock has been issued in the form of common stock. Avanti's capital structure includes no preferred stock or debt, and none is planned in our forecasts.

Voting shares represent 80.3% of Avanti's current capitalization, and that percentage is likely to increase after Avanti completes its "Series A" capital raise (which we expect will consist of voting shares) later this year.

Avanti closed its equity "angel" round on May 19, 2020, pursuant to which it issued \$5 million in common stock and obtained subscription commitments for an additional \$1 million in convertible notes, the latter of which Avanti may elect at its discretion to issue. Following the round, there are only two shareholders that hold at least 10% of the outstanding common stock of Avanti. Caitlin Long is the majority shareholder with 64% of the outstanding common stock (55% after giving effect to full vesting and exercise of the employee option pool), and the University of Wyoming Foundation holds approximately 12% of the outstanding common stock (10% after giving effect to full vesting and exercise of the employee option pool). Note that Table 51 does not incorporate option grants under the employee stock option plan, the entirety of which relates to Class 2 non-voting shares.

²⁵³ As of May 20, 2020.

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Table 51: Avanti Capitalization Table

Post-Financing Capitalization - 5/19/2020					
Investor	Class 1-A	Class 2	Class 1-B	Total Shares	% Ownership
Caitlin Long, Individual	10,000,000	-	-	10,000,000	64.1%
University of Wyoming Foundation	-	-	1,805,380	1,805,380	11.6%
Susan B. Anthony LLC	-	1,098,901	232,442	1,331,343	8.5%
Morgan Creek	-	-	902,690	902,690	5.8%
Other Angel Round Investors	-	-	1,572,932	1,572,932	10.1%
Totals	10,000,000	1,098,901	4,513,444	15,612,345	100.0%

*Only shows issued and outstanding shares and does not incorporate option grants under the employee stock option plan.

Source: Avanti Financial Group

Table 52: Avanti Capitalization Table (including employee stock option plan)

Post-Financing Capitalization - 5/19/2020					
Investor	Class 1-A	Class 2	Class 1-B	Total Shares	% Ownership
Caitlin Long, Individual	10,000,000	-	-	10,000,000	55.4%
Employee Option Pool	-	2,441,758	-	2,441,758	13.5%
University of Wyoming Foundation	-	-	1,805,380	1,805,380	10.0%
Susan B. Anthony LLC	-	1,098,901	232,442	1,331,343	7.4%
Morgan Creek	-	-	902,690	902,690	5.0%
Other Angel Round Investors	-	-	1,572,932	1,572,932	8.7%
Totals	10,000,000	3,540,659	4,513,444	18,054,103	100.0%

Source: Avanti Financial Group

Policies, Procedures, and Disclosures

With its initial product offerings as the base set for its risk assessments, Avanti is in the process of developing policies and procedures for both fiat and digital assets, including:

- policies and procedures relating to AML/BSA/KYC/beneficial ownership,
- market manipulation,
- conflict of interest transactions,
- fiduciary duties,
- consumer protection,
- information technology security,
- business continuity and disaster recovery,
- internal controls,
- vendor management, and
- complaint resolution.

On the fiat side, Avanti intends to utilize standard banking disclosures (and is in the process of interviewing Finastra and Wolters Kluwer) as a starting point, and then customize them in-house; on the digital asset side, Avanti intends to develop them entirely in-house. In each case, outside counsel will review those policies, or portions thereof, as Avanti believes necessary or desirable, and the Board of Directors will approve final versions. Britney Reddy, Chuck Thompson and Erin Young will ensure that each such policy or procedure is designed to ensure compliance with all

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applicable laws, rules and regulations, including the SPDI laws and traditional bank regulation. These policies should be finalized by late July 2020.

6. Records, Systems, and Controls

The implementation of the traditional banking core platform will comply with all applicable federal and state regulations and will voluntarily incorporate certain financial regulatory frameworks as industry best practices pertaining to customer disclosures, regulatory reporting, and information security standards—including applicable deposit regulations (Reg D, Reg DD, Reg CC, Reg. E, NSF processing) and customer regulations (CIP, CDD, EDD, ESIGN). Additional systems specific to the needs of the digital asset industry will include blockchain analysis and monitoring analysis tools and market surveillance.

Avanti intends to manage all on-balance-sheet accounting via the traditional core platform similar to that of a traditional financial institution. Off balance sheet accounting will be maintained and balanced via proprietary digital asset trust software. All oversight of the accounting functions will be managed via the CFO. Certain high-risk accounts, suspense accounts, and correspondent accounts will be balanced daily by accounting/operational staff and verified by the CFO. The accounting will be audited by an external accounting firm at a minimum annually.

An internal risk assessment will be completed and an internal audit plan will be developed after all internal procedures are developed. Internal control audits will be conducted by an individual who is completely independent from the function and if that is unable to be met internally then an external auditor will be engaged for the audit.

External auditors will be utilized for most (or potentially all) of the internal controls audits. External audits identified at this time include:

- penetration and vulnerability testing;
- information technology and controls;
- accounting/directors;
- compliance; and
- BSA/AML.

Avanti is interviewing potential external auditors; none have been engaged at this time. The Audit Committee will ultimately review and choose the auditor(s) to be engaged by Avanti.

Customer complaints will be sent to the customer response team via an online banking customer complaint portal. Each request will be researched and responded to within ten days. Initially the executive team will handle customer complaints, and in 2021 we expect to hire a full-time manager responsible for customer service. All contact information for Avanti's regulators will be included on the portal and instructions will be provided on how to file a complaint with them.

Avanti has an exceptional in-house engineering team that, among other things, will design and implement the online banking portal as well as various integrations with digital assets. Other than the core banking provider and "know your transaction" digital asset analytics, which Avanti will outsource, blockchain development, integration and information security will mostly be implemented in-house.

7. Financial Management Plan

Capital and Earnings

With a fee-based model, Avanti must grow assets under custody while providing desirable products and services to its customers in order to grow revenues and profits. Only some of Avanti's costs will scale up as its assets scale (e.g., insurance for digital assets under custody), and our capital requirement pursuant to Wyoming statute should remain

static in our early years of operation. Accordingly, we expect that Avanti's minimum capital requirement will not be a gating factor for growth over time.

Our growth will be driven by our ability to provide desirable products and services, as well as new business opportunities. As we think about success, we plan to monitor and track a variety of financial ratios, which will assist us in determining the financial health of the organization and trend over time. These ratios include:

- Return on average assets: indicates efficiency and profitability relative to average assets
- Return on average equity: indicates efficiency and profitability relative to average equity
- Noninterest income / average assets
- Noninterest expense / average assets
- Efficiency ratio: measure of overhead as a percentage of revenue

Equity Capital Raised

Avanti raised \$1 million in seed capital in February 2020. This initial investment allowed the company to begin hiring executive staff and engage professional services, such as legal counsel.

On May 19, 2020, Avanti completed its angel investment round, consisting of \$5 million of common stock in addition to subscriptions for \$1 million in convertible notes, which subscription Avanti may draw upon in its discretion. The round was led by the University of Wyoming Foundation, with participation from other well-known institutions, such as Morgan Creek Digital, Blockchain Capital and Digital Currency Group. Avanti's angel round was substantially oversubscribed and several angel investors indicated plans to participate in its Series A investment round.

Avanti plans to conduct a Series A investment round in the second half of 2020, as we describe in the next section, "Adequacy of Equity Capital Raised." Beyond Series A, except to the extent required by regulators, the need to meet additional capital requirements will be based on an evaluation of those needs relative to the business opportunities available to Avanti.

Adequacy of Equity Capital Raised

De novo banks have recently been funded in similar processes, where the chartering authority approved the bank charter conditional upon the subsequent receipt of the required capital amount.²⁵⁴ These *de novo* banks were then required to raise the full capital requirement prior to receiving final approvals and opening for business. As an example, in December 2018, federal regulators provided a conditional approval for Piermont Bank in New York, which included a minimum paid-in-capital requirement.²⁵⁵ Piermont Bank then completed its fund raising for the required minimum capital, raising \$40 million and opening its doors in July 2019.²⁵⁶ In another case, Lexicon Bank (formerly Catalyst Bank) received FDIC approval in July 2018 contingent on a \$20 million minimum capital raise, among other items.²⁵⁷ Lexicon successfully raised the required funds and opened for business in August 2019.²⁵⁸

Avanti does not plan to pay dividends within its first three years of operation. Thereafter, assuming our current financial projections are realized within a reasonable degree of accuracy, we may seek approval from the Wyoming Banking Commissioner to pay dividends to shareholders and return excess equity at that time. However, Avanti's management team intends to apply a disciplined approach to its capital allocation process. We will not invest in

²⁵⁴ See Daniel DiNicola, *New Banks of 2019*, AMERICANBANKER.COM, <https://www.americanbanker.com/list/new-banks-this-year> (last visited Jun. 4, 2020).

²⁵⁵ See Office of the Comptroller of the Currency, *Conditional Approval of the De Novo Charter Application for the Proposed Piedmont Bank*, OCC.GOV (Dec. 6, 2018), <https://www.occ.gov/topics/charters-and-licensing/interpretations-and-actions/2019/ca1207.pdf>.

²⁵⁶ See Geri Stengel, *A Woman Entrepreneur Disrupts the Middle Market Commercial Banking Industry*, FORBES.COM (Mar. 18, 2020), <https://www.forbes.com/sites/geristengel/2020/03/18/a-woman-entrepreneur-disrupts-the-middle-market-commercial-banking-industry/#3bff3b36a3a4>.

²⁵⁷ See Federal Deposit Insurance Corporation, *Application for Federal Deposit Insurance*, FDIC.GOV (Jul. 24, 2018), <https://www.fdic.gov/regulations/laws/bankdecisions/depins/catalyst-bank-las-vegas-nv.pdf>

²⁵⁸ See Eli Segall, *Lexicon Bank opens in Las Vegas*, REVIEWJOURNAL.COM, <https://www.reviewjournal.com/business/lexicon-bank-opens-in-las-vegas-1824850/>

projects expected to earn a return on equity lower than our cost of equity, as such projects would, by definition, be expected to destroy shareholder value. If we cannot find projects that we expect to generate positive returns, we will be inclined to return excess capital to shareholders in the form of dividends (or, if applicable, share repurchases), subject, of course, to considerations relating to the safety and soundness of the institution and the importance of maintaining an adequate capital surplus.

Plans to Raise Equity Capital Prior to Approval: The Wyoming Division of Banking has indicated that Avanti's plan to raise a total of \$31 million is adequate. This capitalization is comparable to that of a traditional *de novo* bank. While Avanti has a non-lending business model and therefore its risk-adjusted capital requirement using traditional metrics would be lower than that of a traditional bank, this high capitalization amount was required by the Wyoming Division of Banking in order to fully fund resolution costs in the unlikely event of the insolvency of Avanti. Moreover, pursuant to Wyoming statute,²⁵⁹ an SPDI's capital requirement must include sufficient capital to cover the SPDI's operating expenses in the first three years, and Avanti's capital plan would far exceed this requirement.

Avanti has already begun identifying potential investors for its Series A, and we anticipate having cash on hand (plus subscription commitments) that exceeds the required \$5 million statutory minimum requirement at the time of the Banking Board hearing. Avanti's Board of Directors elected to pursue this sequencing because raising the equity capital too early would necessitate significant dilution that would reflect uncertainty over whether Avanti will receive its charter. Instead, Avanti plans to raise its Series A round in the following timing and structure, as approved by Avanti's Board of Directors.

Avanti will seek commitments from investors to invest in its Series A common shares, beginning late this summer. Avanti would call the commitments and aggregate the funds into a special purpose vehicle (an "SPV") at or near the time of its Banking Board hearing. If the Banking Board approves Avanti's charter application, the trustee of the SPV would then release the funds to Avanti so it can meet the capital requirement contingency in its charter approval.

The SPV would be legally segregated from Avanti so that—in addition to providing bankruptcy remoteness—in the event that Avanti's charter application is not approved by a certain date, the trustee will be able to return the funds to investors.

This timing and structure for Avanti's Series A fundraising protects all parties involved:

- It protects the Banking Board and Wyoming Division of Banking by ensuring that Avanti will have sufficient equity capital to open its doors prior to receipt of its Certificate of Authority.
- It protects the Federal Reserve by ensuring Avanti has its full required capital on hand prior to obtaining its Master Account.
- It protects investors in Avanti's Series A round by ensuring that the Series A funds will be released for Avanti's use only if the Banking Board approves Avanti's charter application. In the event that Avanti does not successfully obtain a Certificate of Authority by a specified date, the trustee will simply return the funds to the Series A investors in a way that is legally and operationally separate from the liquidation of Avanti. This has the benefit of simplifying and reducing the cost of winding up Avanti if it is not successful in obtaining a Certificate of Authority.
- It protects Avanti's seed and angel investors, including the University of Wyoming Foundation and several other Wyoming-based investors, by eliminating the equity dilution they would otherwise incur if Avanti were to issue additional shares of common stock too early in the process.

Projected Spending Prior to Approval: Avanti's financial projections assume we will spend just over \$3 million in all of 2020, which is covered by existing capital on hand. Additionally, as part of the angel round, Avanti collected subscriptions for \$1 million of convertible notes, which provides Avanti an option to handle unexpected delays as a bridge to the Series A offering. The convertible notes were a suggestion from our lead angel round investor and were subscribed to by multiple investors in the angel round. Avanti would pay a 10% coupon on the note, which would convert into common equity in the Series A round.

²⁵⁹ Wyo. Stat. § 13-12-110 (2019) and Chapter 20, *supra* note 15, §2.

Three-Year Capital Plan: we do not anticipate raising additional capital during Avanti's first three years of operation, because even under our most optimistic projections we do not anticipate approaching \$10 billion in total assets (the threshold for being considered a large bank) during the three-year period. Avanti's capital requirement is designed to ensure that Wyoming taxpayers do not bear the cost of an Avanti receivership. As a 100% reserve bank—whose off-balance sheet assets under custody are predominantly held in bailment by Avanti on behalf of its customers (and as a result, title to those assets is retained by the customers, and the assets remain outside of Avanti's bankruptcy estate)—the cost of a receivership of Avanti is unlikely to exceed the cost of receivership of a trust company. Based on our research, very few trust companies have gone through receivership and in no cases has the wind-up cost exceeded \$20 million. To the extent that Avanti needs to raise additional capital, it would seek such capital from its existing shareholders and from private capital markets.

Debt and Other Instruments

Avanti has raised outside capital in the form of common equity and has already completed both a seed and angel round of funding, for a total of \$6 million. In addition, Avanti has the option to call a \$1 million convertible note, which would provide a buffer to handle unexpected delays. We have implemented an employee stock ownership plan (an "ESOP") to incentivize new and existing employees and pursuant to which we may issue incentive stock options, non-qualified stock options and stock grants. We have not raised debt capital and do not currently anticipate traditional debt instruments as part of our capitalization.

We recognize that it may be in our economic interest to retain excess equity capital to grow the business and/or to seek a credit rating from a Nationally Recognized Statistical Ratings Organization ("NRSRO"), such as Moody's, Standard & Poor's or similar. Again, Avanti intends to be surgical about generating economic value and will only retain capital if we believe we can earn a return that exceeds the cost of our capital, subject, of course, to considerations relating to the safety and soundness of the institution and the importance of maintaining an adequate capital surplus.

Liquidity Risk

With Avanti maintaining 100% reserves backing our deposit liabilities, we will not be subject to the traditional liquidity risk associated with traditional banking institutions. The CFO will maintain processes for projecting base-case and stressed cash flows arising from changes in assets, liabilities, and off-balance-sheet items for various time horizons. These processes will include maintaining projections of all foreseeable cash flows out to a one-year time-horizon. The comprehensive projection of base and stress cash flows will consider deposit and transaction growth, off-balance sheet requirements, marketable securities, large liability maturities, market environments, credit ratings, and funding sources. The projections will be updated monthly and will include: (i) a projection of the available liquidity, including liquid securities, cash deposits, and other readily available sources of liquidity, held by Avanti; (ii) identification of potential liquidity gaps; and (iii) an assessment of the likelihood of the gaps materializing. A reserve for transaction risk will be held on the asset side of the bank to absorb any deficiency in an account due to transactional risk. Our management of the reserve for transactional risk will ensure compliance with the 100% cash reserve requirement.

The purchase of investment securities will be limited to highly liquid assets, including those specified by Wyo. Stat. 13-3-202 and obligations of the United States Treasury or other federal agency obligations, consistent with rules adopted by the Wyoming Banking Commissioner. Avanti will run daily reports to ensure that 100% of our depository liabilities are covered by unencumbered liquid assets as required by Wyoming law.²⁶⁰

Sensitivity to Market Risk

Unlike traditional banks, which do not hold full reserves (and which may pay interest to customers and/or hold loans and other assets whose value may change as interest rates change), Avanti's income will not be directly affected by changes to interest rates. However, if interest rates rise, Avanti would be at risk of losing fiat depositors to competitors that pay interest on deposits. Avanti will complete a gap analysis report to the Board regarding Avanti's interest rate

²⁶⁰ Wyo. Stat. § 13-12-105 (2019).

exposure. This analysis would also be available to regulators upon request. At a minimum, the gap analysis will include full balance sheet scenarios for plus and minus interest rate shifts of 100bp, 200bp, 300bp, and 400bp. The analysis will also stress test market liquidity risks.

Avanti's digital asset services will subject it to an additional source of price and volatility risk than encountered by traditional banks. Avanti will closely monitor the price of each digital asset on Avanti's platform, as price fluctuations will have a direct impact on (and be correlated to) Avanti's custody fee revenue. Conversely, price volatility will also have a direct impact on Avanti's Prime Services revenue—albeit an inverse relationship. For example, Bitcoin volatility and price have shown a negative correlation of 0.7 over the 100 day period ending July 12, 2020.²⁶¹ This implies (1) that an increase in volatility will lead to lower custody revenue (as a result of the corresponding reduction in the price of bitcoin), and vice versa, and (2) that any such reduction in custody revenue due to increased volatility would be at least partially offset by an increase in Prime Services revenue, as higher volatility would likely drive increased transaction volume through Avanti's platform.²⁶²

Resolution Plan

Wyoming law requires SPDIs to submit a resolution plan within six months of opening. We have not yet drafted the resolution plan, but at a high level we have identified several parties capable of quickly assisting the Wyoming Division of Banking with resolving Avanti in a manner generally consistent with that of the FDIC resolution process. The resolution of Avanti would entail transferring the fiat deposit and custody business lines, respectively.

At present, there are no potential acquirers of Avanti's entire business because Wyoming SPDIs are the only class of depository institutions in the U.S. that are permitted both to take deposits and provide custody services for digital assets, and there are no Wyoming SPDIs chartered yet. However, the optimal acquirer would be another Wyoming SPDI because it could keep both of Avanti's deposit and custody businesses together, since all of Avanti's custody customers will also be depositors, and most depositors will likely also use Avanti's custody services. Therefore, the path of least disruption to the old Avanti in receivership would be to transfer it to another Wyoming SPDI. In the future there are likely to be Wyoming SPDIs chartered, and these would be the first potential acquirers for the Wyoming Division of Banking to contact in the event of an Avanti receivership.

Alternatively, if the deposit and custody businesses need to be transferred separately, the Wyoming Division of Banking should contact the traditional banks that currently service digital asset depositors, including [REDACTED] Signature, Metropolitan and even JPMorgan²⁶³ (a very recent entrant to the market). Since the assets backing Avanti's customer deposits are required to be 100% risk-free assets, and the assets are also required to equal 100% of deposit liabilities, the receivership of Avanti should be comparatively straightforward because there are no illiquid assets that must be valued and transferred or liquidated. Moreover, if the acquirer of Avanti's deposits is a traditional bank that is not subject to the 100% reserve requirement, the Wyoming Division of Banking may find that the deposit business is considered overcapitalized by traditional standards (in which capital requirements are heavily influenced by credit and interest rate risk charges, but pursuant to Wyoming law Avanti is not permitted to take either kind of risk). Consequently, the Wyoming Division of Banking may find multiple bidders for Avanti's deposit book of business. Conceivably, it is possible that a traditional bank might even pay a premium for Avanti's deposit book, based on the theory that it could use Avanti's deposits to finance a traditional lending business and therefore earn a much higher net interest margin. At present, however, our understanding is that the volatility of the deposits from digital asset customers is too great for the banks serving this industry to finance a traditional loan book with these deposits—but that is changing as the industry matures.

The more complicated business for the Wyoming Division of Banking to handle as receiver would be Avanti's custody business, due mostly to the operational and IT security risks pertaining to digital assets.

²⁶¹ See BITMEX, BVOL: Annualized Historical Volatility Index, <https://www.bitmex.com/app/index/.BVOL> (last visited Jul. 12, 2020).

²⁶² See Paddy Baker, Crypto Exchanges See Big Drop in Volumes as Bitcoin Volatility Approaches 2020 Low, COINDESK.COM (Jul 7, 2020), <https://www.coindesk.com/crypto-exchanges-volumes-bitcoin-volatility>.

²⁶³ See Daniel Palmer, *JPMorgan Bank Takes on Coinbase, Gemini as its First Crypto Exchange Customers*, COINDESK.COM (May 12, 2020), <https://www.coindesk.com/coinbase-gemini-first-crypto-exchange-customers-jpmorgan-bank-report>.

When we submit our formal resolution plan, we will provide instructions for the Wyoming Division of Banking to transfer control of Avanti's IT systems, including our hardware security modules, to a new operator. This will require the regulator to bring in a party capable of operating Avanti's systems until they are wound down, or a party capable of assisting with withdrawing and transferring the digital assets under Avanti's custody. At present, our recommendation to the Wyoming Division of Banking would be to first contact [REDACTED] which is a U.S.-domiciled digital asset exchange whose executives have spent significant time in Wyoming and were part of the committee that advised it in drafting the custody rules applicable to Wyoming SPDIs. Others who were part of that committee included Kingdom Trust, [REDACTED] and ShapeShift. The latter company runs a software-only, non-custodial business but could be of significant assistance in an advisory capacity. Other advisers who could assist on short notice include Bob McElrath (currently an adviser and consultant to Avanti who is familiar with our system architecture but not a full-time employee), Christopher Allen (also currently an adviser to Avanti) and Trace Mayer (no relationship to Avanti but he also served on the committee advising the Wyoming Division of Banking's SPDI custody rules and has spent considerable time interacting with the Wyoming Division of Banking). Last, there is a long list of additional potential acquirers of Avanti's custody business who have not directly been involved in Wyoming's blockchain initiatives to date but would be capable of taking over Avanti's systems successfully and quickly, including chartered trust companies (Fidelity Digital Assets, Bakkt, Coinbase Custody, Gemini, BitGo, [REDACTED] [REDACTED] and Prime Trust) as well as money transmitters with state money transmission licenses (Bittrex and Binance U.S.).

8. Monitoring and Revising the Business Plan

Adherence to the Plan

Avanti's management team will review the business plan on at least an annual basis to ensure its continuing alignment with the evolution of Avanti's business. We expect core banking activities to remain relatively stable, but that the digital asset side of the business will evolve both internally—in the form of new products and services—and externally.

The digital asset industry evolves very rapidly, and we anticipate reviewing the business plan and product prioritization regularly. Any new meaningful change to our business or the digital asset market would warrant an expedited review.

Changes to the Plan

Avanti's Board of Directors will be responsible for the business plan. At least annually, the Board of Directors will assess any material proposed changes to the business plan. Such changes may include metric updates, such as relevant economic factors, or broader decisions related to product strategy. Avanti's management team will be responsible for planning, reviewing, and implementing any changes to the business plan to the extent approved by the Board of Directors. Avanti's regulators will be promptly notified of any planned material changes to the business plan.

9. Financial Projections

Summary Financial Projections

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Table 53: Avanti Summary Financial Model: *Base Case*

BALANCE SHEET: KEY ITEMS (\$000's)	2020E	2021E	2022E	2023E	2024E
Equity Capital at End of Period	\$ 28,235	\$ 25,665	\$ 29,089	\$ 41,291	\$ 69,010
New Cash in Period	\$ 31,000	\$ -	\$ -	\$ -	\$ -
USD Customer Deposits (on-balance sheet, YE)	\$ -	\$ 35,000	\$ 350,000	\$ 500,000	\$ 1,000,000
Total USD Deposits (on-balance sheet, YE)	\$ 27,500	\$ 60,588	\$ 379,540	\$ 541,291	\$ 1,069,010
Avit Balance (off-balance sheet, YE)	\$ -	\$ 100,000	\$ 250,000	\$ 500,000	\$ 1,000,000
Virtual Currency AUC (off-balance sheet, YE)	\$ -	\$ 350,000	\$ 1,000,000	\$ 1,750,000	\$ 3,500,000
<u>BANK ON-BALANCE SHEET BALANCE SHEET ASSETS</u>					
Due From Banks	\$ 26,770	\$ 159,276	\$ 629,294	\$ 1,038,781	\$ 2,065,498
Investments	\$ -	\$ -	\$ -	\$ 5,000	\$ 10,000
Reserve For Transactional Risk	\$ -	\$ (125)	\$ (175)	\$ (175)	\$ (175)
Fixed Assets	\$ 120	\$ 96	\$ 112	\$ 118	\$ 196
Other Assets	\$ 735	\$ 683	\$ 8	\$ -	\$ -
TOTAL ASSETS	\$ 27,625	\$ 159,930	\$ 629,239	\$ 1,043,724	\$ 2,075,519
<u>LIABILITIES & SHAREHOLDER'S EQUITY</u>					
Non-Interest Bearing Deposit Accounts	\$ -	\$ 35,000	\$ 350,000	\$ 500,000	\$ 1,000,000
Avit	\$ -	\$ 100,000	\$ 250,000	\$ 500,000	\$ 1,000,000
Accrued Expenses & Other Liabilities	\$ -	\$ -	\$ 910	\$ 3,244	\$ 7,368
TOTAL LIABILITIES	\$ -	\$ 135,000	\$ 600,910	\$ 1,003,244	\$ 2,007,368
Common Stock	\$ 31,000	\$ 31,000	\$ 31,000	\$ 31,000	\$ 31,000
Unrealized Gain/Loss on Investments	\$ -	\$ -	\$ -	\$ -	\$ -
Retained Earnings	\$ (3,375)	\$ (5,945)	\$ (2,521)	\$ 9,681	\$ 37,400
Provision for Transactional Risk	\$ -	\$ (125)	\$ (150)	\$ (200)	\$ (250)
TOTAL SHAREHOLDER'S EQUITY	\$ 27,625	\$ 24,930	\$ 28,329	\$ 40,481	\$ 68,150
TOTAL LIABILITIES & SHAREHOLDER'S EQUITY	\$ 27,625	\$ 159,930	\$ 629,239	\$ 1,043,724	\$ 2,075,519
<u>INCOME STATEMENT: KEY ITEMS (\$000's)</u>					
Interest Income	\$ -	\$ 93	\$ 394	\$ 837	\$ 1,560
Service Fees on Fiat	\$ -	\$ 59	\$ 963	\$ 2,125	\$ 3,750
Avit Fees	\$ -	\$ 338	\$ 1,750	\$ 3,750	\$ 7,500
Custody Fees	\$ -	\$ 591	\$ 3,375	\$ 6,875	\$ 13,125
Prime Services Fees	\$ -	\$ 886	\$ 5,063	\$ 10,313	\$ 19,688
TOTAL REVENUE	\$ -	\$ 1,944	\$ 11,544	\$ 23,898	\$ 45,622
Salaries & Benefits	\$ 1,813	\$ 2,939	\$ 4,402	\$ 4,842	\$ 5,326
Occupancy & Equipment	\$ 49	\$ 84	\$ 94	\$ 110	\$ 182
Communications & Data Processing	\$ 305	\$ 412	\$ 412	\$ 453	\$ 499
Professional Services	\$ 1,150	\$ 1,280	\$ 1,280	\$ 1,408	\$ 1,549
Regulatory Fees	\$ 50	\$ 119	\$ 299	\$ 527	\$ 1,200
Other General & Admin	\$ 134	\$ 363	\$ 723	\$ 1,112	\$ 1,779
TOTAL EXPENSES	\$ 3,500	\$ 5,197	\$ 7,210	\$ 8,452	\$ 10,534
Pretax Income	\$ (3,500)	\$ (3,253)	\$ 4,334	\$ 15,446	\$ 35,088
Less: Income Taxes at 21%	\$ (735)	\$ (683)	\$ 910	\$ 3,244	\$ 7,368
NET INCOME	\$ (2,765)	\$ (2,570)	\$ 3,424	\$ 12,202	\$ 27,719

Source: Avanti Financial Group

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Table 54: Avanti Summary Income Statement: *Bear Case*

BALANCE SHEET: KEY ITEMS (\$000's)	2020E	2021E	2022E	2023E	2024E
Equity Capital at End of Period	\$ 28,235	\$ 24,549	\$ 22,778	\$ 26,081	\$ 37,424
New Cash in Period	\$ 31,000	\$ -	\$ -	\$ -	\$ -
USD Customer Deposits (on-balance sheet, YE)	\$ -	\$ 10,000	\$ 100,000	\$ 250,000	\$ 500,000
Total USD Deposits (on-balance sheet, YE)	\$ 27,500	\$ 34,305	\$ 122,780	\$ 276,457	\$ 538,732
Avit Balance (off-balance sheet, YE)	\$ -	\$ -	\$ 100,000	\$ 200,000	\$ 300,000
Virtual Currency AUC (off-balance sheet, YE)	\$ -	\$ 100,000	\$ 500,000	\$ 1,000,000	\$ 2,000,000
<u>BANK ON-BALANCE SHEET BALANCE SHEET ASSETS</u>					
Due From Banks	\$ 26,770	\$ 32,863	\$ 221,608	\$ 471,206	\$ 829,559
Investments	\$ -	\$ -	\$ -	\$ 5,000	\$ 10,000
Reserve For Transactional Risk	\$ -	\$ (125)	\$ (175)	\$ (175)	\$ (175)
Fixed Assets	\$ 120	\$ 96	\$ 112	\$ 118	\$ 196
Other Assets	\$ 735	\$ 980	\$ 473	\$ -	\$ -
TOTAL ASSETS	\$ 27,625	\$ 33,814	\$ 222,018	\$ 476,149	\$ 839,580
<u>LIABILITIES & SHAREHOLDER'S EQUITY</u>					
Non-Interest Bearing Deposit Accounts	\$ -	\$ 10,000	\$ 100,000	\$ 250,000	\$ 500,000
Avit	\$ -	\$ -	\$ 100,000	\$ 200,000	\$ 300,000
Accrued Expenses & Other Liabilities	\$ -	\$ -	\$ -	\$ 878	\$ 3,015
TOTAL LIABILITIES	\$ -	\$ 10,000	\$ 200,000	\$ 450,878	\$ 803,015
Common Stock	\$ 31,000	\$ 31,000	\$ 31,000	\$ 31,000	\$ 31,000
Unrealized Gain/Loss on Investments	\$ -	\$ -	\$ -	\$ -	\$ -
Retained Earnings	\$ (3,375)	\$ (7,061)	\$ (8,832)	\$ (5,529)	\$ 5,814
Provision for Transactional Risk	\$ -	\$ (125)	\$ (150)	\$ (200)	\$ (250)
TOTAL SHAREHOLDER'S EQUITY	\$ 27,625	\$ 23,814	\$ 22,018	\$ 25,271	\$ 36,564
TOTAL LIABILITIES & SHAREHOLDER'S EQUITY	\$ 27,625	\$ 33,814	\$ 222,018	\$ 476,149	\$ 839,580
<u>INCOME STATEMENT: KEY ITEMS (\$000's)</u>					
Interest Income	\$ -	\$ 30	\$ 127	\$ 349	\$ 658
Service Fees on Fiat	\$ -	\$ 17	\$ 275	\$ 875	\$ 1,875
Avit Fees	\$ -	\$ -	\$ 500	\$ 1,500	\$ 2,500
Custody Fees	\$ -	\$ 169	\$ 1,500	\$ 3,750	\$ 7,500
Prime Services Fees	\$ -	\$ 253	\$ 2,250	\$ 5,625	\$ 11,250
TOTAL REVENUE	\$ -	\$ 467	\$ 4,652	\$ 12,098	\$ 23,783
Salaries & Benefits	\$ 1,813	\$ 2,939	\$ 4,402	\$ 4,842	\$ 5,326
Occupancy & Equipment	\$ 49	\$ 84	\$ 94	\$ 110	\$ 182
Communications & Data Processing	\$ 305	\$ 412	\$ 412	\$ 453	\$ 499
Professional Services	\$ 1,150	\$ 1,280	\$ 1,280	\$ 1,408	\$ 1,549
Regulatory Fees	\$ 50	\$ 97	\$ 170	\$ 305	\$ 653
Other General & Admin	\$ 134	\$ 320	\$ 536	\$ 799	\$ 1,217
TOTAL EXPENSES	\$ 3,500	\$ 5,132	\$ 6,894	\$ 7,917	\$ 9,425
Pretax Income	\$ (3,500)	\$ (4,665)	\$ (2,242)	\$ 4,181	\$ 14,358
Less: Income Taxes at 21%	\$ (735)	\$ (980)	\$ (471)	\$ 878	\$ 3,015
NET INCOME	\$ (2,765)	\$ (3,686)	\$ (1,771)	\$ 3,303	\$ 11,343

Source: Avanti Financial Group

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Table 55: Avanti Summary Income Statement: *Bull Case*

BALANCE SHEET: KEY ITEMS (\$000's)	2020E	2021E	2022E	2023E	2024E
Equity Capital at End of Period	\$ 28,235	\$ 27,393	\$ 39,249	\$ 70,709	\$ 130,651
New Cash in Period	\$ 31,000	\$ -	\$ -	\$ -	\$ -
USD Customer Deposits (on-balance sheet, YE)	\$ -	\$ 100,000	\$ 500,000	\$ 1,000,000	\$ 2,500,000
Total USD Deposits (on-balance sheet, YE)	\$ 27,500	\$ 127,576	\$ 539,249	\$ 1,070,709	\$ 2,630,651
Avit Balance (off-balance sheet, YE)	\$ -	\$ 500,000	\$ 1,000,000	\$ 2,000,000	\$ 3,000,000
Virtual Currency AUC (off-balance sheet, YE)	\$ -	\$ 500,000	\$ 1,500,000	\$ 3,000,000	\$ 5,000,000
<u>BANK ON-BALANCE SHEET BALANCE SHEET ASSETS</u>					
Due From Banks	\$ 26,770	\$ 626,281	\$ 1,541,704	\$ 3,073,319	\$ 5,635,704
Investments	\$ -	\$ -	\$ -	\$ 5,000	\$ 10,000
Reserve For Transactional Risk	\$ -	\$ (125)	\$ (175)	\$ (175)	\$ (175)
Fixed Assets	\$ 120	\$ 96	\$ 112	\$ 118	\$ 196
Other Assets	\$ 735	\$ 406	\$ -	\$ -	\$ -
TOTAL ASSETS	\$ 27,625	\$ 626,658	\$ 1,541,641	\$ 3,078,262	\$ 5,645,725
<u>LIABILITIES & SHAREHOLDER'S EQUITY</u>					
Non-Interest Bearing Deposit Accounts	\$ -	\$ 100,000	\$ 500,000	\$ 1,000,000	\$ 2,500,000
Avit	\$ -	\$ 500,000	\$ 1,000,000	\$ 2,000,000	\$ 3,000,000
Accrued Expenses & Other Liabilities	\$ -	\$ -	\$ 3,152	\$ 8,363	\$ 15,934
TOTAL LIABILITIES	\$ -	\$ 600,000	\$ 1,503,152	\$ 3,008,363	\$ 5,515,934
Common Stock	\$ 31,000	\$ 31,000	\$ 31,000	\$ 31,000	\$ 31,000
Unrealized Gain/Loss on Investments	\$ -	\$ -	\$ -	\$ -	\$ -
Retained Earnings	\$ (3,375)	\$ (4,217)	\$ 7,639	\$ 39,099	\$ 99,041
Provision for Transactional Risk	\$ -	\$ (125)	\$ (150)	\$ (200)	\$ (250)
TOTAL SHAREHOLDER'S EQUITY	\$ 27,625	\$ 26,658	\$ 38,489	\$ 69,899	\$ 129,791
TOTAL LIABILITIES & SHAREHOLDER'S EQUITY	\$ 27,625	\$ 626,658	\$ 1,541,641	\$ 3,078,262	\$ 5,645,725
<u>INCOME STATEMENT: KEY ITEMS (\$000's)</u>					
Interest Income	\$ -	\$ 327	\$ 1,084	\$ 2,310	\$ 4,362
Service Fees on Fiat	\$ -	\$ 169	\$ 1,500	\$ 3,750	\$ 8,750
Avit Fees	\$ -	\$ 1,688	\$ 7,500	\$ 15,000	\$ 25,000
Custody Fees	\$ -	\$ 844	\$ 5,000	\$ 11,250	\$ 20,000
Prime Services Fees	\$ -	\$ 1,266	\$ 7,500	\$ 16,875	\$ 30,000
TOTAL REVENUE	\$ -	\$ 4,194	\$ 22,583	\$ 49,181	\$ 88,112
Salaries & Benefits	\$ 1,813	\$ 2,939	\$ 4,402	\$ 4,842	\$ 5,326
Occupancy & Equipment	\$ 49	\$ 84	\$ 94	\$ 110	\$ 182
Communications & Data Processing	\$ 305	\$ 412	\$ 412	\$ 453	\$ 499
Professional Services	\$ 1,150	\$ 1,280	\$ 1,280	\$ 1,408	\$ 1,549
Regulatory Fees	\$ 50	\$ 156	\$ 501	\$ 996	\$ 2,214
Other General & Admin	\$ 134	\$ 388	\$ 886	\$ 1,549	\$ 2,467
TOTAL EXPENSES	\$ 3,500	\$ 5,259	\$ 7,575	\$ 9,358	\$ 12,236
Pretax Income	\$ (3,500)	\$ (1,065)	\$ 15,008	\$ 39,823	\$ 75,876
Less: Income Taxes at 21%	\$ (735)	\$ (224)	\$ 3,152	\$ 8,363	\$ 15,934
NET INCOME	\$ (2,765)	\$ (842)	\$ 11,856	\$ 31,460	\$ 59,942

Source: Avanti Financial Group

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Growth Assumptions

Before discussing Avanti's growth assumptions, it is important to put them into context. The digital asset industry is a rapidly growing, early-stage industry that has been under-banked for years.

At present, only three banks provide the vast majority of basic USD banking services to the industry (REDACTED Signature, and Metropolitan), and none of them offer the full suite of services that Avanti would be able to provide. Accordingly, Avanti's deposit forecasts may seem large—especially if viewed through the lens of a Wyoming community bank that does not compete in such a rapidly growing industry. But they are not significant when compared to the global market opportunity in digital assets. For example, our base-case projection of \$35 million of USD deposits by the end of 2021 could turn out to be very conservative, because there are multiple potential clients capable of depositing that entire amount alone.

Avanti's growth projections do not assume any migration of deposits from existing Wyoming community banks to Avanti. Nearly all of Avanti's addressable market is outside of the State of Wyoming at present. Therefore, Avanti would be attracting new deposits into Wyoming rather than competing with existing community banks for existing customers.

Most digital asset companies—even the oldest and most successful—have previously experienced the loss (or threatened loss) of their basic USD banking services, as their banks withdrew from servicing the industry under heightened regulatory scrutiny of the digital asset industry. (Avanti also was turned down for a basic USD bank account at our inception; fortunately, we had the foresight to apply for multiple bank accounts simultaneously, so this did not become a gating item.) Accordingly, basic risk management practice in the industry dictates that digital asset companies must maintain multiple bank accounts, since everyone in the industry is acutely aware that many start-ups were forced to close their doors after they lost access to their deposit accounts. It is also worth noting that, in the absence of such heightened regulatory scrutiny causing most banks to avoid the industry, likely the Wyoming legislature would not have created a new type of bank charter (Wyoming SPDIs). The legislature voted overwhelmingly to create the SPDI charter, based partly on the testimony from many digital asset start-ups from around the U.S. about the difficulty of obtaining basic bank accounts during Wyoming's legislative hearings.

As industry observer Messari commented in its year-end 2019 industry review, “The path to crippling [the digital asset industry's] growth in the U.S. without banning it is manifold: Crypto banking is facilitated—more or less—by three small banks: REDACTED Metropolitan, and Signature, and major regulatory actions against any of these banks would border on an existential threat to the industry.”²⁶⁴

We anticipate that a meaningful percentage of the digital asset industry will be interested in opening accounts with Avanti—again, in many cases, solely for risk management reasons of having a secondary, non-FDIC insured deposit account.

Avanti has forecasted multiple scenarios for asset growth, including digital assets under custody, Avit collateral, and U.S. dollar deposits. All projected scenarios assume Avanti will have a ramp-up period beginning in the first quarter of 2021, with growth of 10%, 25%, 50%, and 100% at each quarter-end. The base case assumptions have been estimated using relevant data points from existing digital asset companies and sensibility checks. The base case assumptions are based on relevant data points from existing digital asset companies, and market metrics have provided sensibility checks.

²⁶⁴ See MESSARI.IO, *Crypto Policy Trends and Predictions for 2020*, <https://messari.io/article/crypto-policy-trends-and-predictions-for-2020> (Jul 13, 2020).

Table 56: Asset Size Assumptions (Assets Under Custody in \$M)

Year-End	Base Case			Bull Case			Bear Case		
	BTC	Avit	USD	BTC	Avit	USD	BTC	Avit	USD
2020	0	0	0	0	0	0	0	0	0
2021	350	100	35	500	500	100	100	0	10
2022	1,000	250	350	1,500	1,000	500	500	100	100
2023	1,750	500	500	3,000	2,000	1,000	1,000	200	250
2024	3,500	1,000	1,000	5,000	3,000	2,500	2,000	300	500

Growth assumptions for digital assets (specifically, bitcoin (BTC)) under custody, Avit collateral under custody, and U.S. dollar deposits (USD) are:

BTC:

- Relevant industry data points include Coinbase Custody and BitGo, with over \$7 billion²⁶⁵ and \$2 billion²⁶⁶ in assets under custody, respectively. Avanti's base case forecast reaches half of Coinbase's current assets under custody by the end of year four.
- Our forecasts assume that Avanti captures 0.22% of the total bitcoin market in 2021, growing to 1.67% in 2024.

Avit:

- Relevant industry data points include USDC and [REDACTED] Standard stablecoins, with market capitalizations of over \$1 billion and \$240 million, respectively. Our projections indicate that Avanti will reach USDC's current level of assets by the end of year four. The [REDACTED] Standard stablecoin was launched in September 2018²⁶⁷ and reached approximately \$250 million just one year later. We are modeling that Avanti's Avit will take two years to reach this same level, despite the rapidly growing market and despite Avit offering superior accounting, tax and regulatory characteristics relative to those of the [REDACTED] Standard.

USD:

- Relevant industry data points include digital asset customer deposits at Signature Bank, [REDACTED] Bank, and Metropolitan bank of \$2.0 billion, \$1.2 billion, and \$104.2 million, respectively (see Table 37: Competitors for Fiat Core Banking Services). By contrast, Avanti's base case projection is \$35 million by the end of year one and \$1.0 billion by the end of year four.

In assessing the overall reasonableness of our growth assumptions, it is crucial to understand, at a high level, why the digital asset industry is growing. Growth of the Bitcoin network is by far the most significant driver of the industry's asset growth, and it has far exceeded the 10% growth embedded in Avanti's projections.

Bitcoin is an internet protocol layer, akin to SMTP for email or HTTP for web pages. SMTP is the protocol for transporting email on the internet (developed 1982); HTTP is the protocol for the transporting hypertext on the internet (developed 1989); Bitcoin is the protocol for transporting value on the internet (developed 2008). All such protocols transport data on the internet, but there's a huge difference: data on the Bitcoin protocol is unique. To use Bitcoin (the protocol) the user must have its native token—called small "b" bitcoin.

"That is right, in the case of Bitcoin, you can actually own the internet protocol by purchasing bitcoin and holding it. The more it is used, the higher its value."²⁶⁸

²⁶⁵ See COINBASE.COM, *Coinbase Custody acquires Xapo's institutional business, becoming the world's largest crypto custodian*, <https://blog.coinbase.com/coinbase-custody-acquires-xapos-institutional-business>, (Jul 13, 2020).

²⁶⁶ See Isabel Woodford, *BitGo ventures beyond custody with service that makes it look like the DTCC of bitcoin*, <https://www.theblockcrypto.com/post/bitgo-branches-beyond-custody-business-launching-new-business-line>, (Jul 13, 2020).

²⁶⁷ See [REDACTED] [REDACTED] launches new stablecoin, [REDACTED] Standard (PAX), [REDACTED] (Jul 12, 2020).

²⁶⁸ See Tim Keefe, LEDGERSTAT.COM, <https://documentcloud.adobe.com/link/review?uri=urn:aaid:scds:US:b0758cb5-8a5b-49b8-b882-edffdef84e9f> (Jul 13, 2020).

Use of the Bitcoin network is growing rapidly, which is why small “b” bitcoin’s value is also generally increasing. Many metrics depict the growth of the Bitcoin network—for example, the total number of transactions on the network, its total processing power (hash rate) and other factors displayed in Tables 18 through 23, above—but the most meaningful metric is the network’s “difficulty,” which is a measurement tied to the network’s total computer processing power and which algorithmically adjusts so that new bitcoins are minted into existence, on average, every 10 minutes. Bitcoin’s difficulty reached an all-time high on July 13, 2020.²⁶⁹ Again, the more the Bitcoin network is used, the higher bitcoin’s value. The higher bitcoin’s value, the more capital expenditure invested in the Bitcoin network; this in turn results in the Bitcoin network becoming more secure and difficult to compromise.²⁷⁰

Bitcoin’s difficulty has increased 83% in the 12 months ending July 13, 2020, 69% in the 12 months ending July 13, 2019, and 567% in the 12 months before that.²⁷¹ Against this backdrop, we believe that our 10% base-case assumption for growth in total digital assets outstanding is reasonable.

Revenue Assumptions

Avanti’s revenues are broken out by business lines: Core Banking, Avit, Custody and Prime Services.

To assess the reasonableness of these projections, it is worth noting that while Avanti would be operating in competitive markets, neither Avanti’s escrow product nor anything directly comparable to Avit is available on the market today. Accordingly, customers transacting high-value digital asset transactions must create workarounds to handle their problems today. Such workarounds mitigate the counterparty credit risk problem, but in so doing, they exacerbate the cost of latency (which reduces investor returns). As one potential customer told us regarding Avit, “we need this type of solution yesterday.”

Interest Income: As discussed earlier in this plan, Avanti is modeling a 10 bp return on cash, which will be a combination of the Federal Funds Effective Rate and Interest on Excess Reserves.

Core Banking Fees: For traditional core banking activities, we are planning to charge fees that equate to 50 bps annually on customers’ average fiat balances, which consist of an account fee, a positive pay fee, a stop payment fee, a wire transfer fee, and an ACH fee. We intend to assess high inactive and dormant account fees to discourage deposit accounts with no activity.

Avit Fees: We plan to charge 10 bps for the issuance and redemption of Avits and believe we would also be able to charge a 1-2 bp fee on all transactions involving an Avit. As a base assumption, we are only including fees related to the issuance and redemption of the token and excluding transfer fees. Our base assumption includes a 10x multiple on the average Avit balance, meaning that every Avit is issued and redeemed five times in one year.

Custody Fees: We are planning to charge an annual custody fee of 50 bps, on average, which is in line with current industry averages. This fee relates to digital assets in Avanti’s trust business specifically.

Prime Services Fees: These fees currently include our fiat on/off ramp product and escrow services. We define fiat on/off ramp activity as purchasing digital assets with dollars or selling digital assets for dollars. We are projecting a 5x multiple on average assets under custody (AUC), which means that if a customer has \$1 million in average AUC for the year, we expect \$5 million in conversion activity between their digital assets and dollars. Digital asset trading firms turn multiples of their cash on a daily basis, so we believe the 5x assumption on a yearly basis is appropriately conservative for our institutional customers. We are modeling a 10 bp Avanti fee on all trades. Since our escrow product is a new service, we are being conservative with a 1x multiple on average AUC, with a fee of 25 bps.

²⁶⁹ See BLOCKCHAIN.COM, <https://www.blockchain.com/charts/difficulty>, (Jul 13, 2020).

²⁷⁰ See Saifedean Ammous, *The Bitcoin Standard: The Decentralized Alternative to Central Banking*, page 173, Wiley, 2018.

²⁷¹ See BLOCKCHAIN.COM, <https://www.blockchain.com/charts/difficulty>, (Jul 13, 2020).

Expense Assumptions

We have broken out our projected expenses into five categories. The assumptions for each expense were the result of industry research, vendor quotes, and the extrapolation of previously incurred expenses.

Salaries and Benefits: We have modeled an average annual salary per employee of \$150,000, plus 30% for benefits, totaling \$195,000 per employee, on average, once Avanti is granted its charter. Over time, as Avanti hires administrative support and customer service professionals, average employee cost will decrease (we have modeled a flat average salary as a conservative measure). Projected number of employees at YE 2020 -2025: 13; 19; 25; 31; 39. Assuming that its charter application is approved, Avanti will be required by Wyoming statute to have a physical office location. However, we expect that many employees will work remotely (as is standard in the blockchain industry, where engineering teams are globally distributed because it is difficult to find developers with the specific technology skills required; Avanti already has engineers working from different countries, including Egypt and the UK). Included in our headcount projections are increases in engineering, compliance and banking operations professionals over time.

Occupancy and Equipment: Includes Avanti's office location in Cheyenne, WY and required furnishings. We will also have technology equipment specifically dedicated to our custody solution, such as air-gapped laptops and signing devices, and employees will receive company-issued laptops for security reasons.

Communications and Data Processing: The largest expense in this line item is the core banking software provider (implementation fee of \$200,000-400,000 in 2020 plus annual fee of ~\$375,000, starting in 2021) with the remainder being applied to other software needed (custodial equipment and third-party services, secure data center facilities, cloud hosting, cybersecurity services, etc.).

Key vendors include:

- Core service provider (e.g., Finxact, FIS, Temenos): Avanti is looking for a cloud based API Core which provides access to Fedwire, ACH, and SWIFT payment rails, along with additional modules which will integrate with the core platform such as BSA/OFAC screening, BSA/AML transaction monitoring, and positive pay. Initial due diligence has been completed, however, a decision on a core provider has not yet been made.
 - Temenos is a large core provider who services the majority of products and services we are seeking. However, Temenos is internationally based, which carries some additional risk and thus we are in the process of risk weighting some potential issues and interviewing their domestic customers. They are also the highest priced core of the three providers.
 - FIS is similarly sized to Temenos and based in the U.S. with comparable capabilities. Avanti is in the process of working with FIS to analyze their Horizon Core product. These conversations began after determining the FIS Modern Core did not meet Avanti's minimum requirements due to the lack of integration with FIS' payment hubs, specifically wire and ACH. These conversations are relatively new and a full risk assessment has not been completed on the FIS Horizon Core.
 - Finxact is the smallest of the three cores and also based in the U.S. Although Finxact currently provides a more limited product suite, they have communicated product roadmaps, which may suit our needs. Avanti is in the process of completing its risk assessment on the Finxact Core. Their solution is priced fairly and meets our minimum tech requirements; however, there are many third-party integrations that will be required, including an ACH payment provider, BSA screening/transaction monitoring, and detail for the general ledger.
 - Avanti continues to analyze the risks and benefits of these three providers and will determine a direction that will not compromise the safety and soundness of the financial institution while allowing it to achieve the goals of the institution.
- Cloud provider (e.g., Amazon Web Services ("AWS"), Microsoft Azure, Google Cloud Platform)
- Crypto custody vendors (Securosys; other equipment and/or service vendors)
- Blockstream relationship
- Other vendors (KYC, AML, OFAC, etc.)

- Note: we are still in the process of interviewing and vetting key vendors; the specific entities identified above are only representative

Professional Services: Includes legal, audits (technology and accounting), consulting, and other outsourcing arrangements. The majority of growth in this line item is expected from outsourcing arrangements for various technology services as our product suite grows. As a lean team, we plan to utilize technology vendors/providers, where appropriate.

Other General and Admin: Includes business development costs (travel, meals), marketing-related spend (advertising, promotions, sponsorships, memberships), corporate and crypto-asset insurance coverage, and other miscellaneous expenses.

Sensitivity Analysis

As noted in the Sensitivity to Market Risk section, bitcoin price and volatility are two potential risks to Avanti's financial projections. Below we show the impact of a change in each of these factors (note: using Avanti's base case growth assumption).

Table 57: Net Income Sensitivity to Changes in Bitcoin Price (000's)

BTC Price	2020E	2021E	2022E	2023E	2024E
(100%)	\$ (2,765)	\$ (3,673)	\$ (2,871)	\$ (625)	\$ 3,366
(50%)	\$ (2,765)	\$ (3,122)	\$ 276	\$ 5,789	\$ 15,543
(25%)	\$ (2,765)	\$ (2,846)	\$ 1,850	\$ 8,995	\$ 21,631
+0%	\$ (2,765)	\$ (2,570)	\$ 3,424	\$ 12,202	\$ 27,719
+25%	\$ (2,765)	\$ (2,294)	\$ 4,998	\$ 15,409	\$ 33,808
+50%	\$ (2,765)	\$ (2,018)	\$ 6,571	\$ 18,616	\$ 39,896

Source: Avanti Financial Group

Table 58: Net Income Sensitivity to Changes in Bitcoin Volatility (000's)

BTC Vol	2020E	2021E	2022E	2023E	2024E
(50%)	\$ (2,765)	\$ (2,368)	\$ 4,571	\$ 14,539	\$ 32,113
(25%)	\$ (2,765)	\$ (2,440)	\$ 4,164	\$ 13,710	\$ 30,565
+0%	\$ (2,765)	\$ (2,570)	\$ 3,424	\$ 12,202	\$ 27,719
+25%	\$ (2,765)	\$ (2,758)	\$ 2,350	\$ 10,014	\$ 23,577
+50%	\$ (2,765)	\$ (3,005)	\$ 943	\$ 7,147	\$ 18,137

Note: Change in volatility has been modeled with an offset in bitcoin price: e.g. a 25% increase in volatility also reflects a 25% decrease in bitcoin price.

Source: Avanti Financial Group

10. Miscellaneous

Policy Plan

The following policies will be developed during the charter application process:

- A. Audit
 - a. Internal Controls and Audit Policy
 - i) IT Controls and Audit Policy
- B. Information Security
 - a. Network Access Control Diagrams & Data Flow Charts
 - b. Information Security Program/Policy
 - i) Remote Access Policy
 - ii) Acceptable Use
 - iii) Asset Management
 - iv) Backup
 - v) Bring Your Own Device
 - vi) Change Control
 - vii) Email
 - viii) Encryption
 - ix) Firewall
 - x) Log Management
 - xi) Password Policy
 - xii) Patch Management
 - xiii) Wireless and Removable Media
 - xiv) New Technology Onboarding
 - xv) Employee Training – Various Training Initiatives
- C. Operations
 - a. Accounting/Financial Policy
- D. Compliance / BSA
 - a. BSA/AML/KYC Policies and Procedures
- E. Other
 - a. Vendor Management
 - b. Corporate Governance

APPENDIX A**Avit: A Bank-Issued Electronic Negotiable Instrument****Introduction**

This section discusses a new product, a bank-issued electronic negotiable instrument called “Avit.” An Avit is an electronic negotiable instrument—a bank obligation issued as the electronic equivalent of a promissory note, which can be endorsed to a new payee and can be redeemed by the most recent payee. It is akin to a cashier’s check but is legally and structurally distinct. Avit has no direct analogue to an existing payment product. Avits are not legal tender, securities or commodities. Avits are electronic negotiable instruments that provide a private sector solution to the problems of inefficiency and counterparty risk in traditional payment systems.

Avit is a digital asset but is neither a “stablecoin”²⁷² nor a synthetic CBDC.²⁷³ Avits are a new payment technology but they complement rather than replace existing payment systems, including FedNow.

At the request of the Wyoming Division of Banking, we additionally analyze related policy questions in this Appendix A.

It is important to note that the Avit concept not only builds on existing products and legal precedents but has been seven years in the making. This proposal is the culmination of our executives’ direct experience with operational problems in the traditional financial system, which we believe Avits can help solve, and of the extensive legal and regulatory framework for digital assets that the State of Wyoming has been enacting since 2018. While the Avit will rely primarily on UETA, other critical clarifications have also been made to Wyoming law that allow the Avit to map onto UCC terminology. Wyoming’s laws help ensure the legal enforceability of digital asset transactions, provide a roadmap for courts to adjudicate disputes, and help clarify the receivership process applicable to financial institutions that handle digital assets (especially SPDIs). Its prudential standards make Wyoming the only jurisdiction in the U.S. where the Avit proposal could be executed in a safe and sound manner. Without these critical building blocks, we do not believe the Avit proposal would be credible.

Avanti’s proposal is also informed by our CEO’s work with the Joint Committee on the Uniform Commercial Code and Emerging Technologies,²⁷⁴ which is a joint committee of the Uniform Law Commission and American Law Institute to study and draft proposed revisions to U.S. commercial laws pertaining to digital assets. Avanti’s CEO was invited to participate as a formal observer to the Committee as well as to its working group on control of electronic negotiable instruments.

The ideas leading up to the Avit proposal originated in 2014, while our CEO was the Managing Director in Global Capital Markets at Morgan Stanley in New York. The ideas arose while she was completing a project for a treasurer of a US-based multinational company. The project quantified the cost of cash trapped in the company’s 700+ bank

²⁷² “Stablecoins” are defined as digital assets whose value is pegged to the value of another asset. Some are collateralized (backed by a pool of the asset whose value they’re designed to mimic) and others are algorithmic (where an algorithm adjusts the supply up or down to maintain a target value). *See, e.g.,* Connor Blenkinsop, *Stablecoins Explained*, COINTELEGRAPH.COM (Apr. 30, 2019), <https://cointelegraph.com/explained/stablecoins-explained>.

²⁷³

Synthetic CBDC is a new term that means different things to different people. As we use the definition, it means a public/private partnership in which a central bank digital currency—where the obligor is the central bank itself—is distributed by commercial banks, rather than distributed by the central bank directly. A synthetic CBDC would be legal tender, as defined at law. *See, e.g.,* Tobias Adrian, *Remarks by Tobias Adrian at the IMF-Swiss National Bank Conference, Zurich*, IMF.ORG (May 14, 2019) <https://www.imf.org/en/News/Articles/2019/05/13/sp051419-stablecoins-central-bank-digital-currencies-and-cross-border-payments>.

²⁷⁴ The Uniform Law Commission & American Law Institute announced formation of the Joint Committee on the Uniform Commercial Code and Emerging Technologies in 2019. *See generally* Uniform Law Commission, *Uniform Commercial Code and Emerging Technologies*, UNIFORMLAWS.ORG, <https://www.uniformlaws.org/committees/community-home?CommunityKey=a5ffb337-d599-4456-9436-a52aa5d9dcc2> (last visited Jun. 6, 2020).

accounts. The company's commercial banks required it to hold extra cash—which the company's treasurer nicknamed “comfort deposits”—to fund latency in settling payments. These “comfort deposits” were designed to ensure that this company, which had a high cost of capital, would never overdraw its bank accounts due to timing mismatches in settling its payments. The project showed that if same-day payment settlement were possible, approximately \$200 million of the company's trapped (and expensive) capital could be unlocked and put to more efficient use. The second crucial piece of the puzzle became evident when our CEO observed a major problem with the pension fund of a corporate client. The pension fund's brokerage statement displayed an accurate list of all of the securities held in its custodial account, but the custody bank did not in fact have several of those securities in its custody and was unable to deliver them per the instructions of the pension fund. This was able to happen because the custodian lent the securities from its omnibus account without flagging in its ledger systems that a quantity of the omnibus account securities should not have been available for lending. Due to the inherent mismatches in the ledger systems, this problem could not have been discovered by the pension fund in advance. These and other similar experiences²⁷⁵ caused her to look for technology solutions to improve financial sector operations that were inefficient due to high levels of friction, caused inaccurate accounting and were actually harming consumers.

The fundamental problem was that traditional ledger systems were built to solve for technology constraints that no longer existed. And those same outdated ledger systems remain ubiquitous. They dictate that transactions must settle sequentially instead of simultaneously, and they duplicate and reconcile information among counterparties. This causes friction and is why transaction settlement is slow and expensive. Because of their inherent inability to simultaneously settle both sides of a trade, these ledger systems also introduce counterparty credit risk where it would not otherwise exist. These traditional ledger systems also inhibit transparency and make regulatory oversight more difficult.

Of course, these problems are well understood by bank regulators. Indeed, they are partly why FedNow²⁷⁶ was created. For these reasons, Avanti welcomes the FedNow initiative and expects to use the new platform when it becomes available in 2023-24.²⁷⁷

Again, Avit is neither a stablecoin nor is it a synthetic CBDC. Rather, an Avit is a bank obligation in the form of a “transferable record”, issued in electronic form pursuant to existing U.S. law.²⁷⁸ It is a claim on a balance at the bank, analogous to a cashier's check that can be endorsed to a new payee multiple times before the last payee redeems it for money at a bank. In contrast, synthetic CBDC would be legal tender (which an Avit is not); it is not clear what a stablecoin is (a security or a commodity)—but it is clear that all stablecoins exist in a gray area of commercial law. Avit will have a strong commercial law foundation. It is an electronic negotiable instrument that will be accepted in transactions on a delivery versus payment basis.

Avits are not legal tender, securities or commodities. Moreover, Avit would not pose the monetary policy issues created by stablecoins such as Facebook's Libra²⁷⁹ or the Digital Dollar Project,²⁸⁰ nor would it compete for deposits

²⁷⁵ These are two of many operational challenges our CEO experienced across both payments and custody (e.g., cross-border wire transfers that did not end up credited to the company's bank account same-day, and her prior work with the Delaware Blockchain Initiative, including with Delaware judicial and executive branch officials, where she learned of multiple situations in which publicly-traded Delaware corporations disclosed more shares issued and outstanding on their 10-K filings than the quantity of shares validly authorized and registered under Delaware law, giving rise to situations such as that of Dole Food. See Matt Levine, *Dole Food Had Too Many Shares*, BLOOMBERG.COM (Feb. 17, 2017), <https://www.bloomberg.com/opinion/articles/2017-02-17/dole-food-had-too-many-shares>.

²⁷⁶ See The Federal Reserve, *FedNow Service*, FRBSERVICES.ORG, <https://www.frbservices.org/financial-services/fednow/index.html> (last visited Jun. 7, 2020).

²⁷⁷ Pete Schroeder, Fed to Develop Real Time Payments System for Launch in 2023 or 2024, REUTERS.COM (Aug. 5, 2019), <https://www.reuters.com/article/us-usa-fed-payments/fed-to-develop-real-time-payments-system-for-launch-in-2023-or-2024-idUSKCN1UV1XP>.

²⁷⁸ Avits would be “transferable records” pursuant to the Uniform Electronic Transactions Act (1999). For additional detail, please see the “Legal Analysis: Avit Fits Within Existing Law” section, below.

²⁷⁹ See Libra, *Libra White Paper*, LIBRA.ORG (Apr. 2020), <https://libra.org/en-US/white-paper/>.

²⁸⁰ See The Digital Dollar Project, *Exploring a US CBDC*, DIGITALDOLLARPROJECT.ORG, (May 2020), <https://www.digitaldollarproject.org/exploring-a-us-cbdc>

or interfere with the process of maturity transformation, which a CBDC²⁸¹ or the Digital Dollar Project could. Libra will be issued by a non-bank and has the potential to adversely impact monetary policy by moving large amounts of already scarce high-quality liquid assets (“HQLA”) out of circulation—assets that are vital to the efficient operation of the repurchase agreement (“repo”) market, securities lending, prime brokerage financing, derivatives margin and other secured financing markets that use HQLA as collateral.²⁸² The Digital Dollar Project proposal would require the Federal Reserve to integrate a blockchain database architecture into the payment system. Avanti believes that this is a major change that would likely pose more risk to the payment system than allowing a member bank to use blockchain architecture as a mere gateway to the payment system, as Avanti’s proposal does. Additionally, the Digital Dollar Project proposal would not fit into existing U.S. commercial laws and would require that all 50 states enact modifications to the Uniform Commercial Code, which does not currently contemplate legal tender (“money”) issued in electronic form. If the history of states’ adoption of changes to the Uniform Commercial Code (“UCC”) is any indication, this process would likely take many years, if it is ever accomplished in all 50 states.²⁸³

A slightly different but equally significant UCC legal issue would pose an obstacle for national banks entering the digital currency business (and thereby competing with Avanti), a change for which Acting Comptroller of the Currency Brian Brooks is advocating in press interviews. He has indicated that the Office of the Comptroller of the Currency needs to “affirmatively come out and [say], give us information about what crypto needs from banking and banking needs from crypto, because we want to really do something in that space.”²⁸⁴ On June 4, 2020, the Office of the Comptroller of the Currency released an advance notice of proposed rulemaking on the subject.²⁸⁵

“The OCC, quickly under my watch, will get a position together as to what do we think about national banks as appropriate custodians for cryptocurrency. We don’t have a view on that and I don’t want to prejudge that but it is certainly an interest of mine from my past life that we need to come to ground on that. And then there’s the question of what do we think about stablecoins? Are stablecoins equivalent to currency or are the[y] cash equivalents? Can they be held by banks in an awesome format or if they’re held outside of a bank? Is that covered by banking regulations?”²⁸⁶

The UCC legal issue faced by national banks, if they were to enter the digital asset business, is this: the legal status of digital assets is unclear under the UCC unless the owner of the digital assets holds the asset through a bank, broker-

²⁸¹ Authors of a new paper by Federal Reserve Bank of Philadelphia recently highlighted these risks of a CBDC, concluding that “[i]f the competition from commercial banks is impaired (for example, through some fiscal subsidization of central bank deposits), the central bank has to be careful in its choices to avoid creating havoc with maturity transformation. Furthermore, we have shown that the rigidity of the central bank’s contract with investment banks deters runs. In equilibrium, depositors internalize this feature and exclusively deposit with the central bank such that the central bank arises as a deposit monopolist, attracting deposits away from the commercial banking sector. But this monopoly power eliminates the forces that induce the central bank from delivering the socially optimal amount of maturity transformation.” Jesús Fernández-Villaverde et al., *Central Bank Digital Currency: Central Banking for All?*, PHILADELPHIAFED.ORG (June 2020), <https://www.philadelphiafed.org/-/media/research-and-data/publications/working-papers/2020/wp20-19.pdf>.

²⁸² See Izabella Kaminska, *Stablecoins As a Collateral Sinkhole*, FTALPHAVILLE.FT.COM (May. 6, 2020), <https://ftalphaville.ft.com/2020/05/06/1588764474000/Stablecoins-as-a-collateral-sinkhole/>.

²⁸³ As mentioned in note 256 and surrounding text, the Uniform Law Commission and American Law Institute are currently studying and drafting proposed updates to the Uniform Commercial Code for digital assets and other electronic instruments. It is not clear whether such revisions would enable the Digital Dollar Project, the details of which are not yet formed. This is a complex area in which changes develop slowly and carefully, owing to the intricacies of negotiability and methods to perfect security interests. One challenge is that much of the relevant portion of the UCC still requires instruments to be in writing, such as Article 3 “Negotiable Instruments.” The Uniform Electronic Transaction Act was enacted by the ULC in 1999 to supplement the UCC for electronic transactions, and 21 years later, every state but New York and Illinois have adopted it. Washington enacted UETA in 2020. See Uniform Law Commission, *Electronic Transactions Act*, UNIFORMLAWS.ORG, <https://www.uniformlaws.org/committees/community-home?CommunityKey=2c04b76c-2b7d-4399-977e-d5876ba7e034> (last visited Jun. 7, 2020).

²⁸⁴ Kollen Post, *New Head of US Regulator and Former Coinbase Lawyer Invites Banks and Crypto to Collaborate*, COINTELEGRAPH.COM (Jun. 4, 2020), <https://cointelegraph.com/news/new-head-of-us-regulator-and-former-coinbase-lawyer-invites-banks-and-crypto-to-collaborate>.

²⁸⁵ Officer of the Comptroller of the Currency, *OCC Requests Comment on Proposal to Update Activities and Operations Rules and its Rules on Digital Activities*, OCC.GOV (Jun. 4, 2020), <https://www.occ.gov/news-issuances/news-releases/2020/nr-occ-2020-76.html>.

²⁸⁶ *Supra*, note 266.

dealer or other securities intermediary and the intermediary and customer elect to treat the asset as a “financial asset” under UCC Article 8. However, approximately 75-80% of digital assets, including the top two virtual currencies by value (bitcoin and ether), are not held by intermediaries.²⁸⁷ Consequently, the legal enforceability of transfers of these non-intermediated digital assets is open to possible challenges in court, and the ability to ensure that such digital assets are not subject to enforceable liens or similar adverse claims is severely limited. To date, there has not been any such challenge, to our knowledge, because early adopters have generally taken a *caveat emptor* approach and have not litigated disputes. Companies currently serving the digital asset industry, such as trading firms, hedge funds, exchanges and the few banks offering payment services to it, are facing this legal risk when they transact with customers who self-custody their digital assets—with the important exception of customers subject to Wyoming law. Wyoming has explicitly addressed the legal status of digital assets for which owners hold their own private keys (“self-custody”). This is a critical distinction. In the absence of case law in other states, statutory clarifications will eventually help fill the void. The Uniform Law Commission is studying the issue and drafting new proposed uniform statutes; clarifications are likely to begin being codified within a few years. Still, so far, Wyoming is the only U.S. state that has addressed the legal status of transactions involving digital assets not held by an intermediary.²⁸⁸

It is not by chance that Avanti is based in Wyoming. Wyoming has a history of innovation, having led the way in women’s suffrage and being the first U.S. state to pass statutes allowing for the creation of a limited liability company. It is a state with a small population, which may provide regulators with some comfort in allowing Avanti to experiment with prudent innovation in this niche corner of financial markets. As Vice Chair Randal Quarles noted in his 2017 speech, “Thoughts on Prudent Innovation in the Payment System”:

“[T]he potential tension between innovation and stability can be more difficult to manage in the case of payment systems as compared to other industries that are less affected by these hurdles. One sensible approach to risk management would emphasize ‘starting small’ and taking small risks. But unless a payment system grows a fairly large network of users in a reasonable time, it is unlikely to achieve the scope and scale it needs to be successful. Conversely, if a system attempts to start on a large scale and is successful, there will surely be questions about resilience in adversity, particularly if cutting-edge technologies and methods are used to handle people’s money. The essential problem is how to achieve scale and manage financial and technical risk at the same time. Not surprisingly, because striking the right balance takes time, genuine innovation in payment systems over history has often been measured in decades, not years.”²⁸⁹

Wyoming recognizes this dynamic and has sought to be the home of digital asset innovation. It has made significant investments to ensure its SPDI initiative succeeds. The Wyoming Division of Banking has spent nearly three years preparing to regulate SPDIs successfully. The legislature has enacted 20 different bills on this subject since 2018, including more than 200 pages of statutes defining the legal and tax status of digital assets and the regulatory requirements governing SPDIs and the institutions that will service them. Two different governors have signed those 20 bills into law. Current Governor Mark Gordon, a former Class-B director of the Federal Reserve Bank of Kansas City, spoke in his inauguration speech about blockchain technology as an important economic development initiative for Wyoming. He appointed Avanti’s CEO to serve on Wyoming’s Blockchain Task Force (2019) and Select Committee on Blockchain, Financial Technology and Innovation (2020-present). When the University of Wyoming Foundation (UWF) learned about Avanti, its chief investment officer contacted our CEO and they agreed UWF would be the lead investor in Avanti’s angel investment round.

And there is precedent for Wyoming’s actions. In the early 1980s, a state that was also largely rural and agricultural—South Dakota—sought to attract the credit card industry to the state as an economic development initiative, and its legislature and governor were supportive. Nearly four decades and more than 16,000 new jobs²⁹⁰ created later, it is

²⁸⁷ *Supra*, note 13.

²⁸⁸ *Supra*, note 265.

²⁸⁹ See Randal K. Quarles, *Thoughts on Prudent Innovation in the Payment System*, FEDERALRESERVE.GOV (Nov. 30, 2017), <https://www.federalreserve.gov/newsevents/speech/quarles20171130a.htm>.

²⁹⁰ Amy Sullivan, *How Citibank Made South Dakota the Top State in the US for Business*, THEATLANTIC.COM (Jul. 10, 2013), <https://www.theatlantic.com/business/archive/2013/07/how-citibank-made-south-dakota-the-top-state-in-the-us-for-business/425661/>.

safe to conclude that the initiative was a success.²⁹¹ Wyoming is similarly seeking leadership in what is currently a niche of the financial services industry: digital assets.

Avanti has assembled the right team to make a credible application for approval. Avanti believes its team is capable of executing this proposal in a safe and sound manner, in a way that manages its payment system risks. Accordingly, we request approval of the Avit proposal.

What Problems Is Avanti Trying To Solve With Avit?

Avit is a private-sector initiative that should help solve three problems: (1) wire transfers and ACH cause problems for digital asset investors;²⁹² (2) the dollar is not currently “programmable,” and (3) traditional payment systems mostly use a delayed net settlement process, which forces users to trap cash in bank accounts pending payment settlement and introduces credit and fraud risks, and increases friction in the settlement process.

Wire Transfers and ACH Cause Problems for Digital Asset Investors

Based on our extensive conversations with institutional participants in digital asset markets, including exchanges, hedge funds, venture capital funds, derivatives platforms and family offices, we learned that wire transfers and ACH transfers pose serious structural problems for digital asset investors.

The most guaranteed form of money transfer is wire transfers, which are processed slower than digital asset transactions (sometimes taking multiple days while digital asset transactions are nearly instantaneous). Transferring funds via ACH has additional downfalls for use in digital asset transactions as there are chargebacks, adjustments, and errors that can be reversed via this type of electronic payment, which is a risk management problem since most digital asset transactions are irreversible. Regulation E requires that a consumer may dispute an electronic transfer up to the date that is 60 days following the statement cycle (meaning as long as 90 days). This means that value, in the form of goods and services, is often provided long before the provider thereof is guaranteed receipt of funds. As a consequence, many digital asset traders, fintech companies and even more traditional merchants are moving towards other forms of payment, such as stablecoins, that provide faster settlement finality and certainty of payment. The use by these merchants of traditional ACH payments necessitates that they manage cumbersome ACH backstop facilities to account for inevitable disputes and clawbacks. Further, ACH fraud is becoming more prevalent as it becomes easier to access or compromise the private information that is used to conduct fund transfers via ACH. All these factors are driving businesses to seek alternatives to the traditional banking payment methods.

Avit provides a regulated alternative to stablecoins that solves these structural and fraud problems and brings these transactions into the purview of both the Wyoming Division of Banking and the Federal Reserve.

We recognize that stablecoins are a sensitive issue for regulators. No doubt many stablecoin users are motivated by avoiding compliance checks and tax reporting. It is important to add, though, that there are also legitimate reasons why stablecoins are popular—because they solve the delay, chargeback, dispute, adjustment and error problems that pose structural challenges when paying for a digital asset with ACH or wire transfer. Moreover, stablecoins are “programmable” in a way that neither bank deposits nor central bank money is currently, as we will explore further in the next section. For all their problems—and there are many—stablecoins settle faster, offer better settlement finality, provide more functionality and are often cheaper to use than traditional payment systems. For these reasons, legitimate businesses are beginning to use stablecoins in lieu of traditional foreign exchange services,²⁹³ and their annualized transaction liquidity is now nearly \$20 trillion by one measure,²⁹⁴ as discussed in more detail in the next section. These

²⁹¹ Cara Hetland, *Sioux Falls 25 Years After Citibank's Arrival*, MPRNEWS.ORG (Feb. 24, 2006), <https://www.mprnews.org/story/2006/02/23/siouxfalls>.

²⁹² Avanti has also heard that similar problems exist for other participants in the financial industry, such as hedge funds and fintech companies, who have difficulty managing ACH “backstop” facilities. Other countries around the world—including China—are an emerging threat to the U.S. leadership in global finance; we believe Avanti can offer a competitive advantage for all of these participants while staying within the existing U.S. regulatory framework.

²⁹³ See Leigh Cuen, *Why Tether Volume is at All-Time Highs*, COINDESK.COM (Aug. 30, 2019), <https://www.coindesk.com/why-tether-volume-surged-to-all-time-highs-in-august>.

²⁹⁴ Please refer to the calculations in Table 2.

developments are an issue since the entities that are currently issuing these payment forms are outside of the Federal Reserve System.

Avanti is seeking a charter from the Wyoming Division of Banking to operate as a special purpose depository institution, and, as such, could fill some of these gaps. In this section we describe how the market is currently addressing these settlement issues, albeit imperfectly. It is common, for example, for parties to agree to virtual currency transactions via videoconference and to provide 24 hours to settle trades in lieu of delivery versus payment. This means Herstatt risk²⁹⁵ abounds in the market. True solutions to the problems are challenging, though, because delivery-versus-payment transactions involving the U.S. dollar and digital assets currently do not exist, as currently no banks in the U.S. offer custody of digital assets due to legal uncertainty, and because trust companies and other non-banks that act as custodians of digital assets do not have Federal Reserve Master Accounts. This means transaction settlement must involve multiple legal entities and therefore cannot be done simultaneously.

The Dollar Is Not Programmable

“Programmable money” is a term for software that automatically takes action if funds are sent or received, such as “when \$x is transferred, initiate action \$y.” Such software can be useful, for example, to automate payments, to simplify the process of new business formation,²⁹⁶ or to optimize supply chains.²⁹⁷ Without programmable money, it is impossible to fully automate business processes; processes which are programmable cannot be meaningfully integrated with those which are not.

We prefer the term “programmable funds” over terms such as “programmable money” and “programmable dollars” because it helps to clarify that only the Federal Reserve (in conjunction with the Department of the Treasury) can create U.S. dollars. Banks can create *claims* on dollars, and non-banks can create claims to a bank’s claims on dollars. In other words, only the Federal Reserve could really create a programmable dollar (which is what CBDC²⁹⁸ proponents are seeking).²⁹⁹

Programmable funds do not really exist yet within the U.S. banking system. But outside of the banking system, they are growing quickly. Some large banks offer an application programming interface (“API”)³⁰⁰ to provide “somewhat-programmable funds” (*i.e.*, a somewhat-programmable bank deposit), but there is a tremendous amount of friction involved in onboarding a customer onto a bank API. Moreover, there is no standardization around bank APIs, which means users are captive and the potential to integrate across an entire supply chain that touches multiple businesses and multiple banks, for example, is severely constrained. In addition, bank APIs are unable to limit the clawback periods associated with credit and debit card transactions and ACH transactions.

Outside the banking system, however, programmable funds are flourishing, as the proliferation in the quantity of stablecoin transactions indicates.³⁰¹ One of the reasons that stablecoins have become so popular is that they are easily

²⁹⁵ This is also known as “settlement risk.” See, e.g., <https://www.nasdaq.com/glossary/h/herstatt-risk>.

²⁹⁶ An example is Stripe Atlas, which automates the process of new business formation and eases the significant friction of doing so. See Stripe, *Turn Your Idea Into a Startup*, STRIPE.COM, <https://stripe.com/atlas> (last visited Jun. 7, 2020).

²⁹⁷ See generally Antony Lewis, *What Actually is Programmable Money?*, LINKEDIN.COM (Apr. 26, 2020), <https://www.linkedin.com/pulse/what-actually-programmable-money-antony-lewis/>.

²⁹⁸ Issuing a CBDC would require the Federal Reserve to integrate the payment system with smart-contracts protocols. Such protocols are shared and decentralized systems rather than closed, centralized systems, and consequently are fundamentally different architectures than the Federal Reserve’s existing IT architecture. Examples of decentralized smart contracts protocols include Bitcoin, Ethereum, Cardano, and languages such as Blockstream’s Simplicity. Examples of private smart contracts protocols, which are only partly decentralized, include Hyperledger and Corda.

²⁹⁹ See, e.g., The Digital Dollar Project, *U.S. Digital Dollar Project FAQs*, DIGITALDOLLARPROJECT.ORG, <https://www.digitaldollarproject.org/faq> (last visited Jun. 7, 2020) (stating that, in order for a CBDC to meaningfully complement existing central bank money capabilities, dollar CBDC would need to be portable, easy to send, and allow central bank money to become “smart” (e.g., programmable)).

³⁰⁰ An API is a set of programming code that enables data transmission between one software product to another, and also contains the terms of this data exchange. See, e.g., altexsoft, *What is API: Definition, Types, Specifications, Documentation*, ALTEXSOFT.COM (Jun. 18, 2019), <https://www.altexsoft.com/blog/engineering/what-is-api-definition-types-specifications-documentation/>.

³⁰¹ See OKEx Exchange, *Stablecoin Market Share Explodes*, OKEX.COM (Apr. 6, 2020), <https://www.okex.com/academy/en/stablecoin-market-share-explodes-bch-bsv-halvings-approach-market-watch-weekly>.

accessible to many people around the world, including those that have traditionally been “unbanked”. One result of this phenomenon is that much of the innovation in the space is taking place outside of the U.S. banking system. Stablecoins are more accessible and easier (less friction) for users to integrate with than is currently the case with the banking infrastructure. As a consequence, there is a wider group of companies and users that are able to integrate.

Hence, the velocity of programmable funds is observably higher than that of traditional money—by an order of magnitude. The M1 velocity of the U.S. dollar was 5.3x as of May 28, 2020.³⁰² As Table 2 shows, the velocity of the top three stablecoins ranged from 45x to 55x (based on annualized average daily volume for each). This means each unit of the stablecoin changed hands on the blockchain an average 45 to 55 times per year. In other words, programmable funds change hands at a significantly higher velocity than the dollar’s M1 velocity.

But on-chain data understates the true velocity because they exclude transactions cleared at exchanges that are not recorded on the blockchain. This analysis is “rough science”³⁰³ because exchange transaction reporting is not independently verifiable, possibly overstated and certainly not as reliable as on-chain transactions. But the data are nonetheless directionally useful to illustrate the point that there is significantly more velocity in programmable funds than in traditional forms of money.

Table 59: Velocity of Programmable Funds (as of June 3, 2020)³⁰⁴

\$ in '000s	Monetary Base	Daily Average On-Chain Volume	Annualized On-Chain Volume	On-Chain Velocity	Daily Avg. Volume Including Exchanges*	Annualized Volume Including Exchanges*	Total Reported Velocity*
Tether	\$9,041	\$1,362	\$497,123	55x	\$49,240	\$17,972,732	1,988x
USDC	732	90	32,938	45x	530	193,556	264x
REDACTED	250	36	12,998	52x	398	145,380	580x

* Note: exchange-reported volume is not independently verifiable, possibly overstated and certainly not as reliable as on-chain transaction volume. Consequently, we only highlight the on-chain velocity column. The exchange-reported data is not useless, though, because a significant amount of trading volume is indeed crossed at exchanges and not reported on-chain—it is impossible to verify how much, however.

For this reason, we believe that programmable funds are likely to continue to proliferate. The interesting policy question for the Federal Reserve is whether programmable funds should be offered at the central bank level or the bank level, or whether non-banks should be the only issuers of programmable funds. We address this issue more fully in the “Policy Implications of Approving the Avit Proposal” section, below. Avanti proposes to provide a private sector-developed infrastructure to issue programmable funds. An Avit would provide the same level of programmability on a blockchain as existing stablecoins, thereby enabling users to take advantage of different programming environments without the Federal Reserve itself integrating with any of them, and would do so within the existing banking system—and within the purview of the Wyoming Division of Banking and the Federal Reserve. It would also take advantage of tried and tested blockchain software that has proven its ability to protect digital assets from nearly constant attacks for over a decade.

Avit is a potential test case that may help to inform operational aspects of any potential future efforts by the Federal Reserve to make the dollar programmable.

³⁰² Federal Reserve Bank of St. Louis, *Velocity of M1 Money Stock*, FRED.STLOUISFED.ORG, <https://fred.stlouisfed.org/series/M1V> (last visited Jun. 7, 2020).

³⁰³ See Nic Carter, *Polymakers Shouldn't Fear Digital Money: So Far It's Maintaining the Dollar's Status*, COINDESK.COM (Feb. 19, 2020), <https://www.coindesk.com/policymakers-shouldnt-fear-digital-money-so-far-its-maintaining-the-dollars-status>.

³⁰⁴ Information retrieved from CoinMetrics.io for on-chain data and CoinMarketCap for exchange-reported volume data (last visited Jun. 3 2020), <https://coinmetrics.io/> and <https://coinmarketcap.com/>.

Settlement Delays Trap Capital and Cause Counterparty Credit Risk

The fundamental structure of the U.S. payment system is that of delayed net settlement. It evolved this way for good reasons historically—namely, to reduce the quantity of transactions banks processed with each other, and central banks processed with banks. This was especially important when financial transactions were paper based. Once computer processing became ubiquitous, the delayed net settlement model still made sense due to the high cost of data storage and processing. Now that data storage and processing are cheap, these constraints no longer exist.

Accordingly, users would probably use real-time gross settlement systems for at least some of their payments, if such systems were available.

We do not believe real-time gross settlement systems would replace delayed net settlement systems. Instead, we believe they will co-exist. To explain why, here is insight from a 2016 interview on the topic from Dave Morton, then CFO of Seagate Technology, a U.S. data storage company:³⁰⁵

When we first heard about blockchains, like many people we heard ‘Bitcoin’—which for various reasons—didn’t interest us. We took the opportunity to speak to a few blockchain technology start-ups and as a global high-tech manufacturing company, the potential for this technology to solve many pain points for us became immediately apparent. These pain points include supplier payment latency as we pay upwards of +100,000 invoices a month, and transparency for where our cash is around the world as we manage hundreds of bank accounts. This persistent cash velocity friction keeps us from using some of our working capital for other corporate treasury purposes. It is extremely clear to us that corporate use of blockchain technology will simplify corporate treasury operations and improve efficiency...

The financial efficiency of Seagate’s business is defined by our cash conversion cycle and the velocity of our cash is a corporate asset, just as critical as our physical manufacturing facilities. We can’t afford for our cash to be ‘lazy’ and any time we can take out of our Days Sales Outstanding is meaningful. With blockchains, we can have real-time transparency with our customers, helping them to meet their payment terms and eliminating slack in the collection systems we use today. Reducing customer payment latency even 1-2 days would improve the velocity of our cash measurably.

Settlement delays not only trap capital but they also mean one party faces the risk of payment default between the time at which the contract has been agreed and the payment settles. This counterparty credit risk, too, is a risk that the finance officers of companies must manage because many businesses maintain cash balances in bank accounts that exceed deposit insurance caps.³⁰⁶ If parties to a transaction agree to settle a transaction using a real-time gross settlement system, thereby opting into “delivery versus payment / receipt versus payment” arrangements, this risk is removed.

Again, though, we conceive of real-time gross settlement systems as co-existing with delayed net settlement systems, rather than replacing them. As a policy matter, users should be able to choose, just as they can choose between Fedwire and ACH today. The likely outcome is that users will use a mix of alternatives, just as they do today, and will optimize based on cost/benefit analysis.

Avit: The Basics

What Is An Avit?

An Avit is:

- An electronic negotiable instrument that will be accepted in transactions on a delivery versus payment basis.
- Fully compliant with all applicable BSA, KYC, AML, OFAC and related laws and regulations.

³⁰⁵ See Caitlin Long, *Blockchains for Corporate CFOs & Treasurers: Interview with CFO of Seagate Technology*, CAITLIN-LONG.COM (Jun. 30, 2016), <https://caitlin-long.com/blockchains-for-corporate-cfos-treasurers-interview-with-cfo-of-seagate-technology>.

³⁰⁶ In the U.S., the FDIC insurance limit is \$250,000 per depositor and per ownership category. The brokered deposit market developed to help large depositors spread this risk around multiple banks, but is only a partial solution to the counterparty risk problem. See Federal Deposit Insurance Corporation, *Deposit Insurance FAQs*, FDIC.GOV, <https://www.fdic.gov/deposit/deposits/faq.html> (last visited Jun. 7, 2020).

- Backed 100% by risk-free assets.
- Built upon a robust commercial law foundation.

An Avit is a bank obligation issued as an electronic equivalent of a promissory note. Legally, an Avit is a “transferable record” under UETA Section 16 that, if it were issued in paper form, would be a negotiable instrument under UCC Article 3 (this concept is further addressed in the section “Legal Analysis: Avit Fits Within Existing Law”, on page 115 below). Since Avanti expects to be a non-lending bank chartered under Wyoming law, it will be required to back 100% of its deposit liabilities with risk-free assets (via U.S. dollar deposits in Avanti’s Master Account or in other permissible liquid and high-grade investments).

Because an Avit is an electronic negotiable instrument representing a claim on bank assets, the Wyoming Division of Banking and the Federal Reserve would have a direct line of oversight into Avits at all times, including via Avanti’s Master Account at the Federal Reserve Bank of Kansas City. The Federal Reserve would eventually have direct supervision over Avanti (in the event that it is admitted into the Federal Reserve System as a member bank). Additionally, anyone—including the Wyoming Division of Banking and the Federal Reserve—could monitor Avit activity on the public blockchain at any time. The nature of a blockchain is such that anyone may join the peer-to-peer network and receive all transactions that are mined into each block. Each blockchain node also includes a database that the node writes this transaction data into, which is available for querying by other software for research or commercial purposes. Specialized software called block explorers (such as Blockstream Esplora) are available that provide a graphical user interface to explore the contents of particular blocks. There are many such block explorers. Other software, such as a block indexer (bwt is one example), is designed to create an additional database of blockchain data that can be queried in ways not originally envisioned by the original authors of the blockchain node software. These tools and more can be combined to make an effective chain monitoring system by any user of the blockchain networks.

An Avit is not a stablecoin. To illustrate why, we compare Avit to a standard stablecoin in Table 55. Avits have no major characteristics in common with stablecoins. The only characteristic shared by both is the architecture of their databases (*i.e.*, a blockchain), which make them programmable.

Table 60: Avit Compared to a Standard Stablecoin

	Avit	Stablecoin
Issuer	Bank	Non-Bank
Regulatory	Bank obligation (negotiable instrument)	Security or Commodity
Reserves	100% (required by Wyoming law)	100% (target for reserves; not always clear)
Reserves Held	Inside Banking System	Securities and/or Bank Deposits
Legal Status of Token	UETA with UCC Art. 3 protections	Unclear
US GAAP	Cash-Equivalent*	Investment (likely)
Tax	Cash*	Property (likely a capital asset)
Receivership	Formal Resolution Plan—Wyoming Division of Banking receivership rules (FDIC standards)	Unclear/Undefined; Complicated Bankruptcy

Source: Avanti Financial Group.

* In process of being confirmed.

Likely Users of Avit

The likely users of Avit would be sophisticated customers. They would primarily include digital asset traders as well as general businesses looking for a form of payment that enables delivery versus payment / receipt versus payment transactions. As described in the business plan, Avanti does plan to accept high net worth individuals with minimum deposits of \$[1 million], as well as non-U.S. entities and individuals (subject to the foregoing) as customers. In all cases, prior to being allowed to access any portion of the Avanti ecosystem, a potential customer will be required to satisfy our compliance screening, as required by the Wyoming Division of Banking and federal and state law. Potential customers in the digital asset trading business have told us “we need this type of solution yesterday,” due to the problems with using wire transfers and ACH in transactions involving digital assets, which we discussed above.

Flow of Funds Illustrations

Some examples of how the issuance and redemption of Avit will be reflected in Avanti may provide better context.

Issuing an Avit to Customer's Avanti Custody Account

1. Customer submits request to buy Avits
 - a. Customer must have already completed appropriate BSA/KYC/AML checks in order to be issued a fiat deposit account
 - b. Customer must have available funds in their existing Demand Deposit Account at Avanti
 - c. Transaction is initiated via the online portal using a multifactor device via a "Buy Avit" button
 - d. Customer inputs the Avit amount desired (less than or equal to the Available Demand Deposit Account balance)
 - e. Customer agrees to Avanti fee and customer disclosures
 - f. Customer specifies whether the Avits should be delivered into an Avanti custodial (pooled fungible) account or, alternatively, an external blockchain-based destination outside the Avanti platform
2. Avanti initiates a demand deposit (debit) from the customer's fiat deposit account for the Avit purchase and a Trust General Ledger is the offsetting credit
 - a. Applicable fees debited from the Demand Deposit Account and credited to the Income General Ledger
 - b. Avanti's balance at its Master Account with the Federal Reserve Bank of Kansas City does not change
3. Avanti initiates a new Avit minting transaction (on a blockchain) sending the new Avit into the Avit Pooled Fungible account (a custodial trust account) on behalf of customer
 - a. Transaction not final until next signing ceremony and blockchain confirmations accrue
4. Customer Avit custody account credited to reflect ownership of Avits in Avanti Pooled Fungible account
 - a. Customer Avit account is a sub-account of the Avits Pooled Fungible account
 - b. Immediately following signing ceremony completion and after the mint transaction has a sufficient number of confirmations, depending on the blockchain on which the Avit is issued
 - c. Customer's account will receive Avits 1:1
 - d. Legally, customer owns a pro rata share of the pool of Avits held in custody by Avanti's trust department in the form of a fungible bailment

Redeeming an Avit

1. Customer submits request to redeem Avits
 - a. Customer must have already completed appropriate KYC/AML checks in order to be issued a fiat deposit account
 - b. Customer must have available balance in its existing Avits Account at Avanti
 - c. Done through online portal, via a "Redeem Avit" button
 - d. Customer inputs the Avit amount desired (less than or equal to Avits Account balance)
 - e. Customer agrees to Avanti fee
2. Customer Avit custody account debited to reflect redemption of Avits in Avanti Pooled Fungible account
 - a. Customer Avit account is a sub-account of the Avits Pooled Fungible account
 - b. Avits will still exist on a blockchain until signing ceremony is completed
3. Avanti executes an internal transfer (debit) of U.S. dollars from the Avits General Ledger (a trust account holding cash backing Avits) to the customer's Deposit Account (a bank account)
 - a. Applicable fees deducted from Deposit Account
 - b. Avanti's balance at its Master Account with the Federal Reserve Bank of Kansas City does not change
4. Avanti initiates a new Avit burning transaction (on a blockchain) removing the "unassigned" Avit from the Avit Pooled Fungible account (a custodial trust account)
 - a. Transaction is not final until next signing ceremony occurs and blockchain confirmations occur
 - b. The burn transaction does not delay the redemption for customer convenience reasons (however, as discussed more fully in the "Design Decision" section below, Avanti has not yet settled on a specific methodology here, and may ultimately choose an alternative). The unassigned excess Avits would be akin to treasury stock (reported on a corporation's balance sheet, which are shares authorized but not issued and outstanding and which have no value). Avanti would "burn" (*i.e.*, destroy) unassigned excess Avits on some regular schedule, such as once per month. Authorized

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but unassigned Avits would remain in the Avits Pooled Fungible Account in the name of an Avanti house account.

Table 61: Avit Issuance Transaction: Flow of Funds

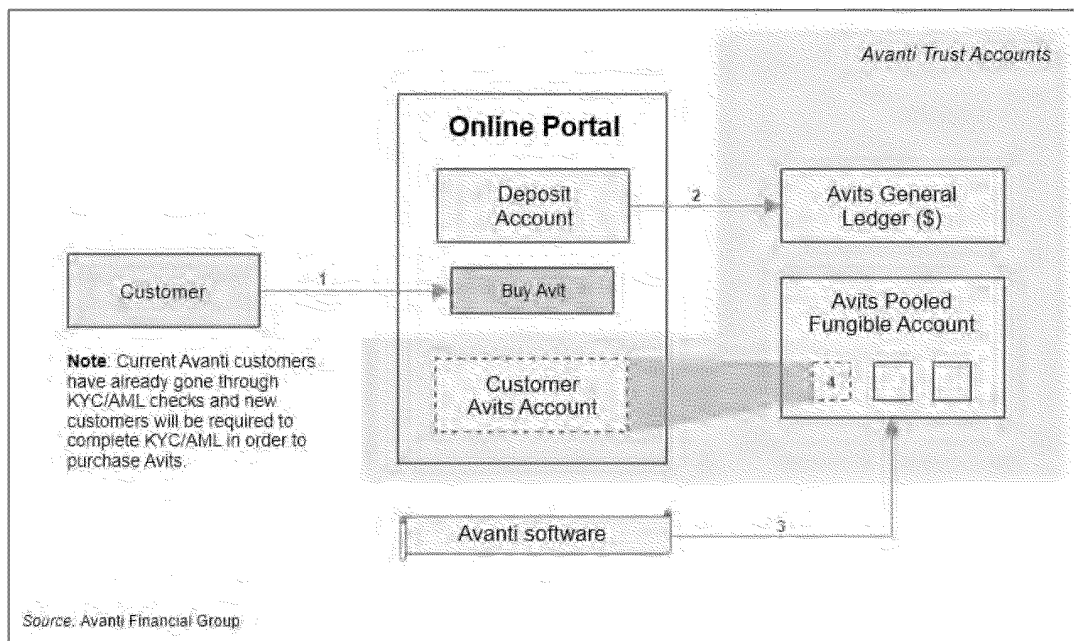
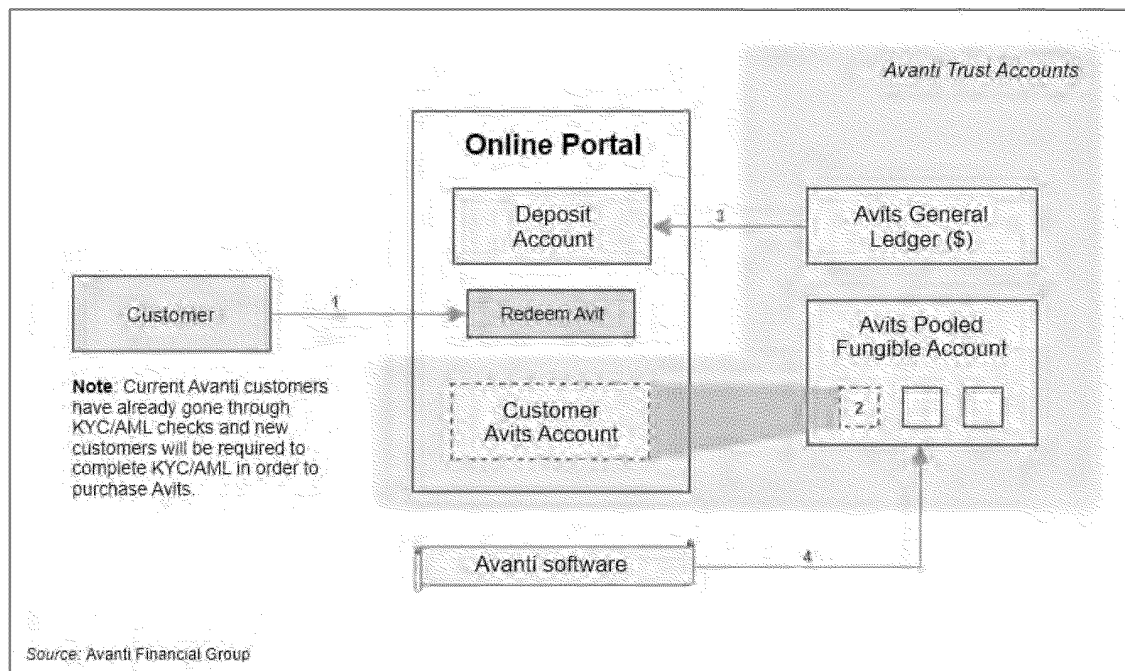


Table 62: Avit Redemption Transaction: Flow of Funds



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Balance Sheet Illustrations: Three Hypothetical Transactions

Next, we trace the balance sheet impact to Avanti (both on- and off-balance sheet) of three hypothetical transactions in which a hypothetical institutional customer of Avanti, Customer 1, decides to purchase \$50,000 in Avits from its Avanti demand deposit account. Then, Customer 1 transfers its Avits to Customer 2 on the blockchain (and Customer 2 takes control outside of Avanti's custody),³⁰⁷ for example for Customer 2 to use in its digital asset trading strategy (in which Avanti has no involvement). Then, at a later date, Customer 2 redeems the Avits for U.S. dollars, which Avanti deposits in Customer 2's deposit account at Avanti.

Table 63: Balance Sheet Illustrations for Aviti

Before Transaction

0	Bank			
	Assets		Liabilities	
	Cash	\$50,000	Customer 1 Deposit Account	\$50,000

Transaction 1: Issuing Avits to Customer 1

1A	Bank			
	Assets		Liabilities	
	Cash	No Change	Customer 1 Deposit Account	↓ \$50,000
			Customer 1 Deposit Account	↑ \$50,000

1B	Trust (off-balance sheet)			
	Assets		Liabilities	
	Avanti General Ledger	↑ \$50,000	Avits Customer Account	↑ \$50,000

Consolidated View			
Assets		Liabilities	
Cash at Fed Master Account	\$50,000	Avits Customer 1 Account	\$50,000

Transaction 2: Customer 1 Transfers Avits Outside Avanti

2A	Bank			
	Assets		Liabilities	
	Cash	No Change	Avanti General Ledger	No Change

2B	Trust (off-balance sheet)			
	Assets		Liabilities	
	Avanti General Ledger	No Change	Customer 1 Avits Account	↓ \$50,000
			Avits in Circulation Account	↑ \$50,000

Consolidated View			
Assets		Liabilities	
Cash at Fed Master Account	\$50,000	Avits in Circulation Account	\$50,000

³⁰⁷ Next, we trace the balance sheet impact to Avanti (both on- and off-balance sheet) of three hypothetical transactions in which a hypothetical institutional customer of Avanti, Customer 1, decides to purchase \$50,000 in Avits from its Avanti demand deposit account. Then, Customer 1 transfers its Avits to Customer 2 on the blockchain (and Customer 2 takes control outside of Avanti's custody), for example for Customer 2 to use in its digital asset trading strategy (in which Avanti has no involvement). Then, at a later date, Customer 2 redeems the Avits for U.S. dollars, which Avanti deposits in Customer 2's deposit account at Avanti.

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Transaction 3: Customer 2 Redeems Avits

3A	Trust (off-balance sheet)			
	Assets		Liabilities	
	Avanti General Ledger	↓ \$50,000	Customer 2 Avits Account	↑ \$50,000
3B	Bank			
	Assets		Liabilities	
	Cash	No Change	Avanti General Ledger	↓ \$50,000
			Customer 2 Deposit Account	↑ \$50,000

Consolidated View			
Assets		Liabilities	
Cash at Fed Master Account	\$50,000	Customer 2 Deposit Account	\$50,000

A Design Decision Avanti Has Not Yet Made: Excess Reserve vs. Not?

When a customer redeems Avits that are in Avanti's custody, Avanti has an interesting system design decision, which it has not yet made but intends to make in the near future. There are two possibilities: either the customer should be immediately credited with U.S. dollars in its fiat deposit account at Avanti; or the crediting transaction should be delayed until Avanti executes a “burn” transaction of the redeemed Avits on the blockchain on which the customer's Avits were originally issued.

The advantage to allowing the customer to receive a credit immediately is the improved customer experience that results by the customers' receipt of dollars immediately upon redemption. The downside is that, for each blockchain on which Avit is supported, Avanti would need to have a (temporary) excess reserve of Avits—an Avits treasury—that are minted but unassigned (akin to treasury stock reported on a corporation's balance sheet, which are shares authorized but not issued and outstanding and which have no value). This would mean that the balance on the blockchain would be greater than the balance of outstanding unredeemed Avits on internal Avanti ledgers. It is not yet clear whether this treatment should be avoided for accounting (or other) reasons, but from a technology perspective, Avanti would design its system to prohibit its ability to re-issue “treasury Avits” without an accompanying simultaneous deposit of cash. Of course, Avanti's systems would also be designed to report the quantity of such “treasury Avits” transparently.

The advantage of delaying a credit to a customer is that the credit could come after the “burn” of Avits on the blockchain occurs, since the minting, transferring, and burning of Avits that are in Avanti's custody must be controlled by a “signing ceremony” with the same high level of security (if not higher) as that utilized for authorizing blockchain withdrawals of bitcoin and other virtual currency. A “signing ceremony” requires that multiple, disparate Avanti personnel, each in a particular secure location, partake in the signing ceremony. Assuming that Avit is even moderately successful, this will be nearly impossible to do on even close to a real-time basis; batching the “burns” would eliminate the excess reserve on each blockchain, but it would also delay the customer's receipt of funds credited to their fiat deposit account. The amount of time between each signing ceremony is ultimately an operational question for Avanti. It is conceivable that a once-per-day signing ceremony would make the most sense from an operational perspective. There are arguments to be made that certain signing ceremonies should on an even less frequent basis.

All else held equal, we would prefer to credit a customer immediately upon their redemption instruction. Given that the redeemed Avits are returned to Avanti's possession in either case, there is no counterparty risk associated with an immediate credit. Risk is limited to Avanti's loss of possession of the redeemed Avits before a signing ceremony can occur, and addressing this type of custodial risk is already a core function of the business.

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Managing the Risks of Avit

We believe Avanti can manage the risk of Avits in a manner that does not threaten the safety and soundness of either Avanti or of the payment system. We believe that Avit may portend risk in four specific areas: (i) compliance with Bank Secrecy Act and related laws and regulations; (ii) credit risk; (iii) IT/blockchain risk; and (iv) payment system risk.

BSA/AML/KYC and OFAC Risk

Avanti will only issue or redeem Avits for customers who have already opened a fiat deposit account and passed all customer onboarding checks. Avanti is in the process of engaging a blockchain compliance surveillance firm, such as Chainalysis, Elliptic or a similar firm, to assist Avanti with meeting ongoing transaction monitoring as well as risk assessments for fraud prevention and detection. Avanti will also have the ability to freeze Avit accounts in the ERC20 contract in the event that a court order is received regarding a specific address.

We understand that the Wyoming Division of Banking has engaged a prominent financial services firm to assist with the development of its supervisory program for digital assets, including BSA/AML/KYC and OFAC issues. Avanti intends to fully comply with that supervisory program, which we believe is likely to be at least as rigorous as those applied by NYDFS to stablecoins issued by New York-chartered trust companies Gemini and [REDACTED] for the Gemini Dollar and [REDACTED] Standard, respectively. These stablecoin issuers received NYDFS approval in 2018³⁰⁸ based in part on assurances that they would:

- Ensure that authorized stablecoins are fully exchangeable for a U.S. dollar, with conditions to ensure monitoring and recordkeeping.
- Implement, monitor and update effective risk-based controls and appropriate BSA/AML/KYC and OFAC controls to prevent the Gemini Dollar or [REDACTED] Standard Token from being used in connection with money laundering or terrorist financing.
- Compliance with DFS's transaction monitoring and cybersecurity regulations.
- Post terms and conditions in a prominent location on both the Gemini and [REDACTED] website, and in any other form or manner required by DFS, that warns consumers that:
 - Any stablecoin and/or the fiat currency available upon redemption of any stablecoin may be forfeited if the stablecoin has been, or is being used for, illegal activity
 - Any stablecoin may be subject to forfeiture to, or seizure by, a law enforcement agency in the event that there is a legal order or other legal process
 - Any stablecoin or fiat currency available upon exchange of stablecoin that has been subject to freezing, forfeiture to or seizure by a law enforcement agency, and/or subject to any similar limitation on its use, may be wholly and permanently unrecoverable and unusable and may, in appropriate circumstances, be destroyed
- Maintain policies and procedures for consumer protection and to promptly address and resolve customer complaints.

Credit Risk

Pursuant to Wyoming law, as an SPDI, Avanti would be a non-lending bank and therefore must hold 100% reserves against fiat deposit liabilities in risk-free assets; in addition, Avanti will hold 100% reserves against every Avit in circulation.³⁰⁹ Moreover, although Avanti is permitted by statute to lend digital assets on the customer's behalf, acting upon customer instructions as a directed trustee, Wyoming statutes expressly prohibit rehypothecation of customer assets.³¹⁰ Accordingly, Avanti can facilitate lending but not re-lending (rehypothecation) of the same asset, which means that the issue with repurchase agreement accounting under U.S. GAAP (which often results in multiple owners recording ownership of the same asset)³¹¹ cannot happen at Avanti. In addition, Avanti would not be borrowing, as

³⁰⁸ See New York State Department of Financial Services, *DFS Continues to Foster Responsible Growth in New York's FinTech Industry with New Virtual Currency Product Approvals*, DFS.NY.GOV (Sep. 10, 2018), <https://www.dfs.ny.gov/about/press/pr1809101.htm>.

³⁰⁹ Wyo. Stat. § 13-12-105 (2019).

³¹⁰ Chapter 19, § 5(g).

³¹¹ See Caitlin Long, *Two Wall Street Terms Every Bitcoin Trader Needs To Learn Now*, FORBES.COM (Aug. 13, 2018), <https://www.forbes.com/sites/caitlinlong/2018/08/13/the-r-and-c-words-enter-the-vocabulary-of-bitcoin-enthusiasts/>.

principal, a customer's Avit for its own account or on-lending/rehypothecating for its own account—Avanti will act as agent or directed trustee only. Both of these laws are designed to ensure that Avanti never has less than 100% reserves, either on-balance sheet in its fiat-deposit accounts or off-balance sheet in its trust business.

IT / Blockchain Risk

Allowing customers to choose between different blockchains for their Avits is one aspect of risk management. Different blockchain platforms offer different risk profiles. It is up to customers to determine which blockchains conform to their requirements, and it is up to Avanti to evaluate market demand and determine where to spend resources on development and integration. Avanti will offer customers the choice of blockchain on which to receive the Avits they purchase, but will only integrate with blockchains it deems secure and sufficiently tested by the marketplace.

At present, Avanti would plan to begin with only one blockchain but would likely offer a second one within the first two years of operation. In the event of a blockchain failure, Avanti would have the ability to re-issue Avits on an alternate platform, so long as ownership could be unequivocally determined. Customers would need to be able to produce a proof of control of Avits per the last blockchain state that Avanti recorded in its blockchain integration system. Based on this proof of control, in the form of a valid signed transaction presented to us by the customer (similar to how a financial audit of blockchain assets would determine the quantity held in custody at Avanti), we will be able to redeem their Avits. Avanti would then work to re-issue the Avits on other blockchains, depending on factors including (i) which blockchains Avanti is integrated with at the time, and (ii) which blockchain(s) each customer requests a withdrawal into, from the selection of integrated blockchains.

For on-platform transactions, Avanti will work with customers to resolve failure scenarios, which would also be defined in customer service level agreements. Avanti does not take liability for a blockchain going down, and does not provide service level guarantees for off-platform transactions. Additionally, if customers choose to hold Avits in their own custom wallets, they would need to choose their own wallet, hardware wallet, or build their own custodial solution. Avanti would not be responsible to ensure the quality of these solutions or for any loss resulting from improper storage procedures for off-platform assets.³¹²

Payment System Risk

Please refer to the Payment System Risk Policy discussion on page 18, which we drafted to include Avit.

Policy Implications of Approving the Avit Proposal

At the request of the Wyoming Division of Banking, we discuss the following policy questions pertaining to the Avit proposal:

1. Would approval of this proposal change the definition of “bank”?
2. Would approval of this proposal represent a departure by the Federal Reserve regarding private money?
3. Who would be gaining access to the payment system, and what risks would they pose?
4. Would approval of this proposal impact monetary policy?
5. Would approval of this proposal open the door to “narrow” banks?

Each of these questions is addressed in order below.

1. Would approval of this proposal change the definition of “bank”?

No. Avanti is a bank in the traditional sense—a depository institution that takes dollar deposits and facilitates dollar payments for customers. Conceptually, Avanti's business plan resembles that of custody banks such as Bank of New York Mellon or State Street, since the majority of Avanti's revenues are likely to come from custody fees. These custody banks typically specialize in custody and do not have significant lending businesses by choice. The only difference is that Avanti cannot lend, by law, as SPDIs are non-lending banks. Wyoming SPDIs are functionally

³¹² Avanti has extensively detailed the main risks associated with custody of digital assets, and strategies to manage them, in the business plan section of our charter application.

similar to national trust companies that have Master Accounts. They, too, are also mostly custodians and many also do not have FDIC insurance. In addition to deposits, dollar payments, custody and trust, other services intended to be offered are the same as or similar to services offered by banks, including brokering/clearing/settling currency transactions, escrow services and transferable/negotiable liabilities (similar to traded CDs or checks written on an account).

2. Would approval of this proposal represent a departure by the Federal Reserve regarding private money?

No. An Avit is not legal tender. Instead, it is an electronic negotiable instrument—in effect, a promise by Avanti to pay a U.S. dollar; it is not a private attempt to copy a U.S. dollar. Because an Avit is a promise by a bank to pay a U.S. dollar, and is redeemable at Avanti for exactly one U.S. dollar (backed by 100% reserves that are 100% invested in short-term risk-free assets), Avit will always intrinsically be worth \$1.00. Short-term differences in supply/demand dynamics could cause it to trade temporarily at slightly less or more than \$1.00, but to minimize this possibility we intend to work with liquidity providers that have a financial incentive to capture risk-free profits if Avit's market price diverges from \$1.00, even by tiny amounts.³¹³ The fact that Avanti is required to maintain reserves backing 100% of its deposit liabilities in short-term risk-free assets means Avanti does not face credit or interest rate risk, so an Avit will not diverge from \$1.00 for credit- or interest-rate related reasons. Unlike stablecoins or money market mutual funds, Avit is not designed to track a dollar in a way that can foreseeably diverge slightly from \$1.00—instead, an Avit is *actually* worth \$1.00. Accordingly, we believe divergences will be short-lived and infrequent, especially as liquidity for Avits grows over time.

3. Who would be gaining access to the payment system, and what risks would they pose?

No one new gains access, since [REDACTED] Signature, Metropolitan and JPMorgan already provide payment system access to digital asset companies and stablecoin issuers/exchanges. These activities already exist (and their customers already have access to the payments system), but in partnership rather than directly—and without the direct supervision of the Federal Reserve, in the case of the non-depository trust companies that issue stablecoins. As we discuss below, there are questions about the legal enforceability of stablecoin transactions under U.S. commercial law, which therefore would pose special difficulties for the bankruptcy of a stablecoin issuer—even if the issuer is a state-chartered trust company. Yet, stablecoin issuers already have access to the banking system as deposit customers of a handful of commercial banks, so this is not new. As a fully regulated, audited, 100% reserve bank that (at least initially) intends to deposit its cash directly at the Federal Reserve, Avanti expects that it would likely be the only U.S. dollar issuer of a digital asset in the form of a negotiable instrument that can prove its solvency. As a result, we believe that Avanti would likely divert a portion of the legitimate demand for stablecoins away from the existing market. Granting Avanti a Master Account would bring Avanti's share of the market directly into the purview of the Federal Reserve.

Avanti would, as previously discussed, also bank customers that are not “digital asset companies,” but that desire faster more secure payments technology and the possibility of receiving and selling digital assets (such as a university endowment). In that sense, Avanti intends to bank traditional institutional and corporate customers as well, all of which already use the banking system for access to the payments system.

4. Would approval of this proposal impact monetary policy?

No, not directly. It is true that Avanti's reserves would be counted equally in the Federal Reserve's monetary base and M2, since Avanti is a non-lending bank. However, the difference between M2 and the monetary base has already been shrinking for years as the mechanisms through which the Federal Reserve conducts monetary policy today have evolved. Regarding these new mechanisms, including the repo market, Avanti may indirectly have a positive impact on the Federal Reserve's ability to affect monetary policy by diverting stablecoin activity back into the banking system and away from securities and OTC trading markets (where the isolation of HQLA outside of the financial system by

³¹³ Avanti intends to work with its liquidity providers, who will necessarily have the mechanics in place, to ensure that they acquire Avits that “trade” for less than one U.S. dollar and return it to Avanti for redemption, thereby capturing a risk-free profit. The same is true for Avits that “trade” at a premium to one U.S. dollar, which liquidity providers can sell short and similarly capture a risk-free profit.

large stablecoin projects such as Facebook's Libra or Arca's USTCoin (US Treasury Coin)³¹⁴ poses a risk to the efficacy of monetary policy by exacerbating the problem of collateral scarcity.³¹⁵ Indeed, the European Central Bank published a paper³¹⁶ outlining its concern about stablecoin projects creating silos and highlighting an extreme-case scenario in which the size of the Libra reserve could grow to almost €3 trillion. Such a scenario of removing €3 trillion of collateral from re-use/rehypothecation could pose significant challenges for the efficacy of monetary policy.³¹⁷ If stablecoins are going to grow to be that large, the Federal Reserve would likely prefer that they be inside the banking system so that monetary policy can be conducted directly with such entities rather than indirectly.

5. Would approval of this proposal open the door to "narrow" banks?

No. Avanti is neither a "narrow" bank or a pass-through investment entity (PTIE), as defined by the Board of Governors of the Federal Reserve System.³¹⁸ Avanti has a specific business reason to operate as a 100% reserve bank—namely, deposits from digital asset customers are too volatile to use as funding for a traditional lending business. This fact is confirmed by our conversations with banks that currently provide fiat deposit accounts to digital asset businesses, since such banks today hold 100% reserves against these volatile deposits for prudent risk management purposes. Volatile demand deposits generally do not mix well with a traditional lending portfolio that deploys credit risk and maturity transformation to earn a spread, and a business plan proposing such a mix would rightly raise safety and soundness questions. In our opinion, the only prudent way to provide deposit banking services to digital asset customers is to do so on a non-lending, 100% reserve basis. This could change over time as the industry broadens and deposits become more stable, but for the foreseeable future we believe prudent risk management requires a 100% reserve model. The digital asset business lines of [REDACTED] and Signature today operate in largely the same way, to our knowledge—they are largely fee-based business lines and are operated in a *de facto* segregated, 100% reserve manner from each of those bank's traditional businesses, such that the volatility of their digital asset business lines does not impose unmanageable liquidity and interest rate risk on the bank as a whole.

It is also worth noting that Avanti should not be compared with TNB,³¹⁹ a bank that explicitly calls itself a "narrow" bank.³²⁰ TNB's proposed business model is to arbitrage Federal Reserve monetary policy by paying a portion of its interest on excess reserves to its large customers. TNB is both a "narrow" bank and a PTIE that would have had "...the ability to attract very large quantities of deposits at a near-IOER rate [and have] the potential to complicate the implementation of monetary policy."³²¹ In contrast, Avanti has no current plans to attract very large quantities of deposits or pay interest to depositors. Avanti likely would not pay interest to depositors unless interest rates were materially higher, as depositors in the digital asset industry do not expect interest on deposits (or interest on stablecoins either).

Moreover, we intend to assess high inactive and dormant account fees to discourage demand deposit accounts with no activity.

³¹⁴ See Marc Hochstein, *Startup Arca Seeks SEC Approval for Treasury Bond-Backed Stablecoin*, COINDESK.COM (Apr. 16, 2019), <https://www.coindesk.com/startup-arca-seeks-sec-approval-for-us-treasury-bond-backed-stablecoin>.

³¹⁵ See Izabella Kaminska, *Stablecoins As a Collateral Sinkhole*, FTALPHAVILLE.FT.COM (May. 6, 2020), <https://ftalphaville.ft.com/2020/05/06/1588764474000/Stablecoins-as-a-collateral-sinkhole/>.

³¹⁶ See Mitsutoshi Adachi, Matteo Cominetta, Christoph Kaufmann, and Anton van der Kraaij, *A Regulatory and Financial Stability Perspective on Global Stablecoins*, ECB.EUROPA.EU (May 5, 2020), https://www.ecb.europa.eu/pub/financial-stability/macprudential-bulletin/html/ecb.mpbu202005_1~3e9ac10eb1.en.html.

³¹⁷ "When collateral markets are constrained, and their effect is lower for a given supply of money (M), a larger change in benchmark interest rates (r) will be needed to produce the same change in output (Y)." See Manmohan Singh, *Collateral Must Be Part of Monetary Policy Equation: Incorporating Collateral Efficiency into IS/LM Model Reveals Side-Effects of QE*, RISK.NET (June 1, 2020), <https://www.risk.net/regulation/7552621/collateral-must-be-part-of-monetary-policy-equation>.

³¹⁸ See <https://www.federalregister.gov/documents/2019/03/12/2019-04348/regulation-d-reserve-requirements-of-depository-institutions>.

³¹⁹ See Matt Levine, *The Fed Versus the Narrow Bank*, BLOOMBERG.COM (Mar. 8, 2019), <https://www.bloomberg.com/opinion/articles/2019-03-08/the-fed-versus-the-narrow-bank>.

³²⁰ See <https://www.tnbusa.com/>.

³²¹ See <https://www.govinfo.gov/content/pkg/FR-2019-03-12/pdf/2019-04348.pdf>.

Furthermore, Avanti intends to offer a suite of products, as shown by this business plan—including wire transfers, payment services, custody, escrow, fiat exchange for digital assets (fiat on/off ramp), and other services discussed in this business plan that are aimed at providing a bank platform for services that are not currently combined or available in the market, and are not aimed at providing customers with the equivalent of Federal Reserve Bank liabilities.

Legal Analysis: Avit Fits Within Existing Law

One of the essential features of any medium of exchange is negotiability. A holder of an instrument must be able to transfer it to a good faith transferee in a way that provides the transferee with certainty that its rights to the instrument will not be subject to the claims of the transferor's creditors (or, for that matter, the creditors of any of the transferors who transferred it to the immediate transferor). The UCC has extended this kind of protection to good faith transferees of certain assets, including checks, promissory notes, and other "negotiable instruments."³²² More specifically, the UCC provides that a "holder in due course" of an instrument is generally not subject to other claims on the instrument, including those of creditors with perfected security interests. In order to be a holder due in course, not only must the acquirer satisfy certain requirements (*e.g.*, it must acquire the asset in good faith and for value), but the instrument itself must also qualify as a specific kind of legal form. Stablecoins to date have not generally met these legal form requirements. The Avit will.³²³

More specifically, Avanti will structure the Avit so that it constitutes a "transferable record" under Section 16 of the Uniform Electronic Transfers Act ("UETA") over which an acquirer will establish "control" within the meaning of UETA. This treatment will allow the acquirer to have "the same rights and defenses as a . . . holder in due course."³²⁴

Overview of UETA

The Uniform Law Commission issued UETA in 1999 in order to "remove barriers to electronic commerce by validating and effectuating electronic records and signatures."³²⁵ One of the ways that UETA accomplished this was through Section 16. That section provides that "a person having control of a transferable record is the holder, as defined in Section 1-201(20) of the [UCC], of the transferable record and has the same rights and defenses as a holder of an equivalent record under the [UCC], including, if the applicable statutory requirements . . . are satisfied, the rights and defenses of a holder in due course" Accordingly, so long as the Avit constitutes a "transferable record" over which the acquirer has "control," the pledgor will have the rights and defenses of a holder in due course.

Transferable Record

In order for something to constitute a transferable record, (1) it must be an electronic record, (2) that record must be of a type that would be considered a note under Article 3 of the UCC were it in writing,³²⁶ and (3) the issuer must have expressly agreed that the digital asset is a transferable record.³²⁷

1. Electronic Record

UETA defines "record" to mean "information that is inscribed on a tangible medium or that is stored in an electronic or other medium and is retrievable in perceivable form." An "electronic record" is a "record created, generated, sent, communicated, received, or stored by electronic means." Lastly, "information" means "data, text, images, sounds, codes, computer programs, software, databases, or the like."

³²² UCC Art. 3.

³²³ Avanti believes strongly that legal clarity is necessary for the success of an instrument such as the Avit. *See, e.g.*, Jess Cheng, *How to Build a Stablecoin: Certainty, Finality, and Stability through Commercial Law Principles*, 17:2 Berkeley Bus. L.J. 320 (2020) at 323 ("How to Build a Stablecoin"). Avanti intends to structure the Avit such that it will be an electronic negotiable instrument that will be accepted in transactions on a delivery versus payment basis.

³²⁴ UETA § 16(d).

³²⁵ Prefatory note to UETA.

³²⁶ Alternatively, an electronic record may be considered a document under Article 7 of the UCC. However, such would not be relevant for an Avit.

³²⁷ UETA § 16(a).

The Avit will constitute an electronic record for purposes of UETA, as the token will consist of data that is created, generated, sent, communicated, received, and stored by electronic means. An Avit can be thought of as a ledger entry on a database in that it represents a controllable quantity of a token that is recorded on a blockchain.

2. Negotiable Instrument under Article 3 of the UCC

Article 3 provides that a “note” is a “negotiable instrument” that constitutes a “promise.” A negotiable instrument, in turn, is an “unconditional promise or order to pay a fixed amount of money, with or without interest or other charges described in the promise or order” that.³²⁸

(1) is payable to bearer or to order at the time it is issued or first comes into possession of a holder;

(2) is payable on demand or at a definite time; and

(3) does not state any other undertaking or instruction by the person promising or ordering payment to do any act in addition to the payment of money, but the promise or order may contain (i) an undertaking or power to give, maintain, or protect collateral to secure payment, (ii) an authorization or power to the holder to confess judgment or realize on or dispose of collateral, or (iii) a waiver of the benefit of any law intended for the advantage or protection of an obligor.³²⁹

The Avit will be structured specifically to satisfy this requirement. Each Avit (whether in the smart contract or in the terms of each token on the relevant distributed ledger, depending on the particular blockchain in question) will include express language stating that Avanti promises to pay the holder of such Avit an amount of U.S. dollars equal to the denomination of such Avit on demand.³³⁰ The Avit will not include any other undertaking or instruction.

3. Issuer’s Express Agreement

Lastly, the issuer of the electronic record must expressly agree that each record is a transferable record.³³¹ According to Comment 2 to UETA, this requirement “indicates that the electronic record itself will likely set forth the issuer’s agreement, though it may be argued that a contemporaneous electronic or written record might set forth the issuer’s agreement.”³³² Avanti will expressly agree that each Avit is a “transferable record” for purposes of UETA.³³³

Control

UETA provides that, in order for a person to establish “control” of a transferable record, there must be a system “for evidencing the transfer of interests in the transferable record [that] reliably establishes that person as the person to which the transferable record was issued or transferred.”³³⁴ The distributed ledgers on which the Avit balances will be recorded will reliably establish the person to whom each Avit has been issued or transferred—only the person holding the private key associated with that Avit balance will be able to transfer or redeem that Avit. Indeed, the distributed

³²⁸ UCC § 3-104(a).

³²⁹ UCC § 3-104(a).

³³⁰ In addition, the terms and conditions relating to the Avits will expressly state that an Avit constitutes a promise to pay by Avanti. Similar to certain other issuers of promissory notes, Avanti will require any holder of an Avit that seeks to redeem it to meet standard KYC/AML requirements.

³³¹ UETA § 16(a)(2).

³³² UETA § 16, Comment 2.

³³³ Comment 2 to UETA also clarifies that this requirement “does not otherwise affect the characterization of a transferable record ... or obligate the issuer to undertake to do any other act than the payment of the obligation” and thus transform what would otherwise be an “unconditional promise” into a conditional promise within the meaning of Section 3-104(a)(3) of the Uniform Commercial Code. UETA § 16, Comment 2.

³³⁴ UETA § 16(b).

ledgers are arguably a *more* reliable system than many, if not all, centralized recordation systems, as the distributed nature of the ledger makes it extremely difficult to compromise or otherwise tamper with the record. By contrast, in order to disrupt a centralized record, one would need only to compromise the security system for that centralized record.

Beyond the broad standard articulated above, UETA does not require more to establish “control” over a transferable record. However, it does provide a “safe harbor” which if met, will satisfy the control requirement. Although it is not necessary for a system to satisfy that safe harbor in order to provide control over a transferable record, the Avit will also satisfy that safe harbor.

1. “System” Safe Harbor

First, in order for a system to fall within the safe harbor, there must be a “single authoritative copy” of the transferable record, which is “unique, identifiable, and [generally] unalterable.”³³⁵ Importantly, the transferable record itself need not contain a watermark or some other indicator to establish that it is the single authoritative copy. It is possible (and more generally the case) that some other resource, such as the eRegistry used by the mortgage electronic registry system (“MERS”) in connection with electronic mortgage notes, will establish which copy of a transferable record is the single authoritative copy. The Avit will satisfy this requirement, as the terms and conditions to which each Avit is subject (or each Avit or smart contract itself) will state that the authoritative copy of such Avit is the one the person with the private key can access to effectively transfer such Avit.

Second, the authoritative copy must either (a) identify the person to whom the transferable record was issued or (b) if the authoritative record indicates that the record was transferred, then identify the person to which it was most recently transferred.³³⁶ The Avit will achieve this, since the person to whom each Avit was issued or transferred will be the person with the private key capable of transferring such Avit. In this manner, each Avit will identify its owner.

In addition to the above, the safe harbor requires that the authoritative copy be communicated to and maintained by “the person asserting control or its designated custodian” and that copies or revisions that add or change an identified transferee of the authoritative copy are made only with the consent of the person asserting control.³³⁷ The Avit will satisfy these conditions, as the person asserting control (*i.e.*, the person with the private key capable of transferring or redeeming the Avit) will maintain the Avit by being able to prevent any modification without that person’s involvement.³³⁸

Lastly, each copy of an authoritative copy must be readily identifiable as a non-authoritative copy and any revision of the authoritative copy must be readily identifiable as authorized or unauthorized.³³⁹ This will be the case with Avit, as any changes to the authoritative copy would require the involvement of the person with the relevant private key.

Why Use a Blockchain for Avit?

When a blockchain—which uses a decentralized database architecture—is proposed for any product, the first question analysts should ask is whether a blockchain is necessary, or whether a traditional database would be superior.

In Avanti’s case, it is worth underscoring that we use a traditional database for both U.S. dollar deposits and internal transfers of dollar balances, which is the vast majority of transactions we anticipate at Avanti.

For Avits, however, we do plan to use a blockchain—though, again, we have not yet finalized on which blockchain(s) we would use—because a blockchain adds value in a few ways:

³³⁵ UETA § 16(c)(1).

³³⁶ UETA § 16(c)(2).

³³⁷ UETA § 16(c)(3)-(4).

³³⁸ Avanti will establish procedures for handling hard forks in accordance with Wyoming law. These procedures will not modify the authoritative copy, but clarify how to identify the authoritative copy in the event of a hard fork incident.

³³⁹ UETA § 16(c)(5)-(6).

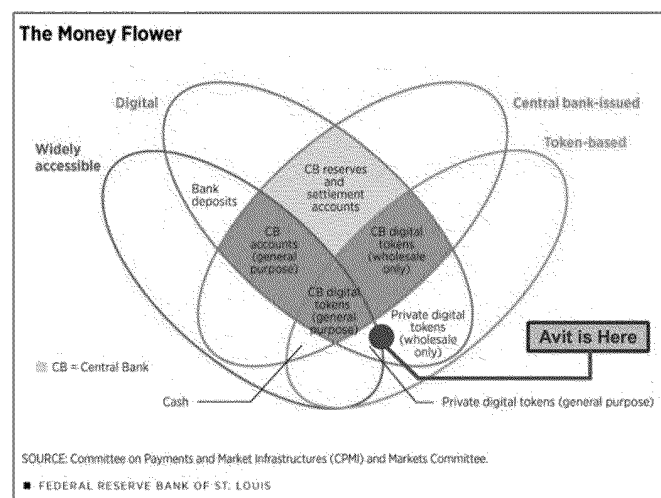
- It reduces friction, because payments generally settle faster on blockchains than in traditional payment systems.
- It can be used for delivery-versus-payment / receipt-versus-payment transactions, when parties need both sides of a transaction to settle simultaneously.
- It enables customers to take self-custody of their digital assets, if they choose to do so.
- It uses network rules, rather than a trusted third party, to enable and enforce value exchange in the network, and to provide transparency to both users and regulators (who can regulate from their desktops).
- It enables programmable funds. By integrating against multiple blockchains, Avanti's customers would be able to use their Avits to take advantage of other programming environments for using their financial wealth in a compliant manner, without needing to wait for Avanti to implement updates to our proprietary database to support each new innovation.

Analysis: How Avit Differs from Other Digital Assets

There is no existing digital asset that is directly comparable to Avit—it is unique, both because it would be bank-issued and because it is legally structured as a negotiable instrument rather than a commodity or security. To illustrate its differences, we compare and contrast Avit against existing dollar-denominated digital assets, broken down into the following two categories: wholesale payment tokens and fiat-collateralized stablecoins.

To begin, below is where we would place Avit within the Bank for International Settlements' "money flower" diagram. By this taxonomy, Avit is a private digital token and therefore fits in the blue and orange circles. It is not widely accessible because it is only available to existing Avanti customers that successfully complete required due diligence screening, but it is not entirely a closed system either because such customers can use Avits off-platform.

Table 64: Avit's Place In The BIS "Money Flower"³⁴⁰



We found the following chart particularly helpful to understand how Avit fits into the landscape of collateralized digital assets, each of which touches central banks in some way (directly or indirectly). It includes CBDCs (ranked as lowest degree of risk, #1), privately-issued tokens in which central banks are directly involved (degrees of risk #2 and #3), privately-issued tokens issued and backed by commercial banks (degree of risk #4) and privately-issued tokens issued by non-banks (also known as regulated stablecoins, highest degree of risk #5). We modified the taxonomy as its author (LedgerInsights) originally wrote it by adding Avit in a new row, with a degree of risk of 2.5. This reflects the fact that Avit has no direct comparable. It is a commercial law -compliant payment obligation of a regulated state bank that is backed by U.S. dollar deposits and/or other high-quality liquid assets held at the Federal Reserve.

³⁴⁰ Bank for International Settlements, cited by Federal Reserve Bank of St. Louis with notation by Avanti Financial Group.

Confidential Treatment Requested

Table 65: Classification of Collateralized Digital Assets³⁴¹

Issuance Method	Degree of Risk (1 - 5)	Issuers	Collateral Keepers	Examples
Central Bank Digital Currency (CBDC)	1	Central banks	Central banks	People's Bank of China (DCEP); Central Bank of Uruguay (e-Peso); Bank of Thailand (Ithanon); Sweden Riksbank (e-Krona)
Tokens backed by cash held in reserve accounts with the central bank and guaranteed by central bank	2	Central securities depositories and/or associations of commercial banks	Central banks	Digital Singapore dollar and the opportunity to use tokens issued by multiple central banks (Project Ubin involving the Bank of England and the Bank of Canada); Project Stella of the European Central Bank and the Bank of Japan
Tokens backed by cash held in the central bank's general reserve account and not enjoying central bank guarantees	2.5	Wyoming SPDI	Central bank	Avit of Avanti Bank
Tokens backed by cash held in the central bank's general reserve account and not enjoying central bank guarantees	3	Central securities depositories and/or associations of commercial banks	Central banks	Project Finality funded by 14 banks, formerly known as Utility Settlement Coin
Tokens backed by cash deposits with a commercial bank	4	Commercial banks	Commercial banks	Signet Coin of Signature Bank; JPM Coin of J.P. Morgan; Wells Fargo Digital Cash of Wells Fargo
Tokens issued by organizations without a banking license	5	Mostly trusts of cryptocurrency trading firms	Commercial banks	Gemini Dollar from Gemini Exchange; REDACTED Standard from REDACTED USD Coin from Circle and Coinbase

Wholesale Payment Tokens

The commercial banking industry is still in its early stages of exploring applications for digital currencies, but a handful of first movers have introduced their own tokens for use in wholesale banking. These include projects by J.P. Morgan Chase, Wells Fargo, Signature Bank, and Finality (formerly Utility Settlement Coin). As shown in Table 60 immediately above, most collateralized digital assets are issued by commercial banks and backed by cash deposits held at those banks. The only outlier is Finality's Utility Settlement Coin, which we discuss in more detail below.

³⁴¹ Based on a taxonomy published here <https://www.ledgerinsights.com/nsd-whitepaper-blockchain-in-finance/> and modified by Avanti to add Avit to the taxonomy at line "2.5."

Table 66: Comparing Avit to Wholesale Payment Tokens^{342 343 344 345}

	Issuer	Network	Reserves	Focus	Transfers
Avit	Bank	Subject to Compliance Approval	100% Reserved with Risk-Free Assets (Federal Reserve Deposits, U.S. Treasuries)	Payments	Approved Venues
JPM Coin	Bank	Closed	Internal Cash	Wholesale	Permissioned
Wells Fargo Digital Cash	Bank	Closed	Internal Cash	Cross-Border	Permissioned
Signets	Bank	Closed	Internal Cash	Inter-Bank	Permissioned
Utility Settlement Coin	Non-Bank	Closed	Deposits at Central Banks*	Inter-Bank Settlement	Inter-Bank Members Only

*There is uncertainty surrounding Utility Settlement Coin's proposed reserve structure, which we discuss below.

To achieve settlement for transactions with digital tokens, these banks employ custom versions of open source blockchain platforms³⁴⁶ that are:

- Permissioned: access controls are used to restrict network and user activities
- Private: each is for exclusive use by commercial clients or other commercial banks
- Limited: existing payment arrangements are wholesale only

It is important to note that these design choices limit the scope of digital tokens as financial networks. For example, none of the aforementioned digital tokens, with the exception of Fnality's Utility Settlement Coin, can move outside of the networks of their respective banks. This means the tokens are only "somewhat programmable" and do not deliver more functionality than the APIs some big banks provide their large customers, as discussed on page 93. This lack of interoperability, in addition to reducing utility value, also shows that these tokens are siloed in their own ecosystems—a situation that could introduce stability risk into the financial system should these tokens successfully compete for wide-scale adoption. Avit, on the other hand, will be able to transact across approved venues outside of the bank, and it will be designed to support a wider set of initial use cases that require funds to be programmable.

There are many potential applications for distributed ledger technologies in traditional banking, but industry efforts have thus far been localized to use cases in wholesale payments—including securities settlement. Avit will share these use cases with digital tokens issued by commercial banks, but its technical underpinnings will allow for greater functionality, accessibility, and interoperability.

Signature Bank's Signet Platform

In January 2019, Signature Bank³⁴⁷ became the first in the U.S. to launch a regulated blockchain platform for real-time commercial payments.³⁴⁸ The platform, called Signet, is a proprietary system that uses digital tokens named

³⁴² See JPM Coin, JPMORGAN.COM, <https://www.jpmorgan.com/global/news/digital-coin-payments> (last visited Jun. 6 2020).

³⁴³ See Wells Fargo, *Wells Fargo to Pilot Internal Settlement Service Using Distributed Ledger Technology*, BUSINESSWIRE.COM (Sep. 17, 2019), <https://www.businesswire.com/news/home/20190917005340/en/Wells-Fargo-Pilot-Internal-Settlement-Service-Distributed>.

³⁴⁴ See signet, SIGNATURENY.COM, <https://www.signatureny.com/business/signet> (last visited Jun. 6, 2020).

³⁴⁵ See Fnality, FNALITY.ORG, <https://www.fnality.org/> (last visited Jun. 6, 2020).

³⁴⁶ J.P. Morgan's *JPM Coin* uses a custom version of the Ethereum network called Quorum. <https://www.goquorum.com/>. Wells Fargo's *Wells Fargo Digital Cash* uses R3's Corda. <https://www.r3.com/corda-platform/>. Signature Bank's *Signet* uses a customized version of the Ethereum network that was developed in partnership with trueDigital Holdings LLC. <https://www.businesswire.com/news/home/20181204005239/en/Signature-Bank-Unveils-Proprietary-Digital-Payments-Platform>. Fnality's *Utility Settlement Coin* uses an Ethereum-based blockchain. www.fnality.org.

³⁴⁷ See Signature Bank, *Signet*, SIGNATURENY.COM, <https://www.signatureny.com/business/signet> (last visited Jun. 5, 2020).

³⁴⁸ See Signature Bank Press Release, *Signature Bank Unveils Proprietary Digital Payments Platform, Signet*, BUSINESSWIRE.COM (Dec. 4, 2018), <https://www.businesswire.com/news/home/20181204005239/en/Signature-Bank-Unveils-Proprietary-Digital-Payments-Platform>.

signets to facilitate real-time transactions between network participants. Each signet is representative of one U.S. dollar held in escrow at Signature Bank, and these deposits are FDIC-insured.³⁴⁹

Signets are based on the ERC-20 token standard of the Ethereum network, but they do not currently interoperate with other systems built to accommodate the standard. This means that Signet, while built on an open access framework, operates as a closed system and its signets (i) do not leave the network and (ii) are not freely tradeable.

In allowing commercial clients to make payments in U.S. dollars 24/7, the system compares favorably with traditional corporate payments using the SWIFT interbank platform or the Automated Clearing House (ACH) network, which can take as long as three days and are generally not available on weekends.

Participation in the network is exclusively available to commercial clients of Signature Bank, which is interesting to note since the current use case for the system does not require blockchain technology or an asset tokenization and redemption process. Clients using the platform are required to maintain a minimum deposit balance of \$250,000.³⁵⁰

Signet and its technical underpinnings represent a type of financial network that is markedly different from those of other fiat-tokenization payment systems operated by commercial banks. In short, signets have intrinsic features that are more akin to virtual currencies, such as bitcoin, than a fiat-proxy token for payments.

How Avit Differs From Signet:

- Signature operates a closed system available only to Signature customers, while Avanti proposes to operate a system that is open to approved venues and subject to compliance approval.
- Perhaps a reason why Signature has not opened its platform is that Signature, as an FDIC-insured bank, is subject to regulatory uncertainty related to providing custody services for digital assets. Simply put, in order to allow the digital asset to operate outside of the closed system there needs to be an ability to provide custody services for the assets (otherwise it is merely an intra-bank transfer between accounts). Avanti, in contrast, plans to provide custody services for digital assets as a major part of Avanti's business plan.
- Avanti's Avit obligations are 100% reserved and its reserves are 100% invested in risk-free assets, while Signature's leverage and asset mix are those of a traditional commercial bank.

JP Morgan's JPM Coin

Introduced by JP Morgan in February 2019, JPM Coin is a tool for settling transactions between clients of the bank's wholesale payments business.³⁵¹ JPM Coins are designed to make instantaneous payments over a permissioned blockchain³⁵² and represent U.S. dollars held in designated accounts at JP Morgan Chase Bank NA. When one client sends money to another over the network, JPM Coins are transferred and instantaneously redeemed for the equivalent amount of U.S. dollars. This process aims to (i) shorten the typical settlement time, (ii) limit settlement and counterparty risk, and (iii) lower capital requirements.

³⁴⁹ *Id.*

³⁵⁰ *Id.*

³⁵¹ See JPMorgan Chase, *Digital Coin Payments*, www.jpmorgan.com/global/news/digital-coin-payments (last visited Jun. 5, 2020).

³⁵² JPM Coin is issued on the Quorum blockchain, which is a permissioned version of Ethereum. See quorum, GOQUORUM.COM, <https://www.goquorum.com/> (last visited Jun. 5, 2020).

Table 67: Comparison Between JPM Coin and Cryptoassets³⁵³

	Collateralization	Blockchain	Users	Primary Utility
Cryptocurrencies (e.g. bitcoin, ether)	Uncollateralized Value intrinsic to coin	Public (open access)	Primarily retail Nascent wholesale user base	Investment
Fiat-backed stablecoins (e.g. USD Coin, Tether)	Reserves held at bank Solvency models vary Claim 1:1 fiat backing	Public (open access)	Retail Nascent, wholesale user base	Trading
JPM Coin	1:1 redeemable in fiat currency held at J.P. Morgan Chase Bank N.A. (e.g. USD)	Permissioned (i.e. enterprise grade, secure blockchain built by JPM and/or partners) Only institutional customers passing J.P. Morgan identity checks can transact	Only for institutional customers (e.g. banks, broker dealers, corporates)	Payments

Over time, J.P. Morgan has announced it will consider³⁵⁴ extending JPM Coin to other major currencies, to making it operable on other blockchain platforms, and to using it in arrangements for securities delivery-versus-payment settlement. This implies that the product is designed to be currency agnostic and thus serviceable as a multi-asset financial network (not just a technical network for the U.S. dollar) with applicability to payment arrangements beyond just business-to-business money movement flows. Since JP Morgan has the reach and resources to achieve wide-scale usage over a short period of time, this could present both financial stability issues and significant monetary implications.

How Avit Differs From JPM Coin:

- Same as those listed above in the comparison of Signet to Avit.
- Avits and JPM Coin are both serviceable in multi-asset financial networks, but Avits will likely be used mostly in digital asset markets (at least initially). JPM Coin, by contrast, is not used in digital asset markets. This gives Avits a proving ground to test its applicability to traditional financial markets.

Wells Fargo Digital Cash

Announced by Wells Fargo Digital Cash in September 2019, Wells Fargo Digital Cash is functionally quite similar to the model for JPM Coin.³⁵⁵ The platform serves as an internal settlement service for cross-border money transfers using digitized representations of the U.S. dollar. Designed to meet the growing demand for reduced friction in these arrangements, Wells Fargo Digital Cash makes use of custom technology featuring smart contract functionality. This architecture allows for automated money movement without impacting underlying accounts, transaction postings, or reconciliation infrastructure.

The platform is meant to address the challenges of speed, transparency, and cost in whole sale payment arrangements between businesses; however, the network (like JPM Coin) is currency agnostic and usable across various payment applications. While the digital cash will initially be used internally and for U.S. dollar denominated transactions only, Wells Fargo has stated its intent to expand the program to multi-currency transfers as well as bank-to-bank settlement in the future, starting with the bank's own network of branches around the world.

³⁵³ See JPMorgan, *JPMorgan Creates Digital Coin Payments*, JPMORGAN.COM (Feb. 14, 2019), <https://www.jpmorgan.com/global/news/digital-coin-payments>.

³⁵⁴ See JPMorgan Chase, *Digital Coin Payments*, www.jpmorgan.com/global/news/digital-coin-payments (last visited Jun. 5, 2020).

³⁵⁵ See Wells Fargo News Release, *Wells Fargo to Pilot Internal Settlement Service Using Distributed Ledger Technology*, WF.CO (Sep. 17, 2019), <https://newsroom.wf.com/press-release/innovation-and-technology/wells-fargo-pilot-internal-settlement-service>.

How Avit Differs From Wells Fargo Digital Cash:

- Same as those listed above in the comparison of JPM Coin to Avit.

Finality (formerly Utility Settlement Coin)

Utility Settlement Coin, now called Finality, is an initiative led by a non-bank financial technology firm that was founded in 2019 by a consortium of international banks,³⁵⁶ including U.S. domiciled G-SIBs State Street and Bank of New York Mellon, to create a blockchain-based settlement system for wholesale banking markets. The system is designed to allow for its digital token (USCs) to function as a single pool of funds in multiple fiat currencies (USD, EUR, GBP, JPY, CAD). The fiat currencies backing these funds are to be held at the respective bank, with convertibility at par guaranteed at all times. As stated in Finality's white paper:

"USC will be a digital representation, recorded on a private distributed ledger, of a claim, entitlement or interest, depending on the jurisdiction, in or to central bank money held in a central bank account. Although referred to as a "coin", USC will differ from other digital "coins" in that it should represent a claim, entitlement or interest that a holder has to or in funds held at the central bank."³⁵⁷

In short: Finality, which is a non-bank, plans to issue claims to central bank money (including U.S. dollars and four other major currencies). In the U.S., the regulatory path for a non-depository institution to issue claims to central bank money is not clear. In our research we found references to the possibility that Finality, a non-depository, will create a joint account at the Federal Reserve with its investors (many of which are G-SIBs³⁵⁸).

How Avit Differs From Finality's USCs:

- Avanti would be a bank, whereas Finality is not.
- Finality has the potential to compete with or even supplant FedNow, while Avit would be a user of FedNow and a gateway to it.
- An Avit is an electronic "transferable record", a classification which provides it with a firm legal status. Finality has not disclosed sufficient information to allow an outsider to analyze the legal structure and commercial law treatment of USCs, but there are likely open questions about the treatment of USCs under the Uniform Commercial Code (the "UCC") because the legal status of digital assets is unclear.
- The treatment of Avits in a receivership of Avanti has been specified under Wyoming law, and pursuant to Wyoming law Avanti is required to submit a resolution plan to assist the Wyoming Division of Banking with a wind-up of Avanti. Further, the Wyoming Division of Banking has developed a niche capability in digital asset regulation and has cultivated the relationships and advisers necessary to assist it in the event it ever becomes receiver of a Wyoming SPDI. By contrast, the treatment of USCs in receivership of Finality is not clear—for example, as a non-depository, whether the FDIC would handle its receivership, or would it be handled in bankruptcy court, and how the USCs would be treated in a G-SIB receivership.

Avanti is targeting niche markets (digital assets) and may grow beyond that over time as it proves itself. Finality is targeting markets that are at the very heart of the financial system. This raises interesting policy questions for the Federal Reserve related to the path of prudent payment innovation—namely, to start small and risk that it never achieves scale, or start large and face questions about resilience in adversity, as highlighted by Vice Chair Quarles' 2017 speech on the topic.³⁵⁹ It would seem the Federal Reserve is faced with the opportunity to approve innovation projects that are literally polar opposite in size and scope: a Wyoming-chartered SPDI or a consortium of G-SIBs.

³⁵⁶ Finality's Consortium includes UBS, Banco Santander, Deutsche Bank AG, Bank of New York Mellon Corp, State Street Corp, Credit Suisse Group AG, Barclays PLC, HSBC Holdings Plc. See <https://publications.banque-france.fr/sites/default/files/medias/documents/wp757.pdf>.

³⁵⁷ See Finality White Paper at <https://www.finality.org/>.

³⁵⁸ See generally Financial Stability Board, *2019 List of Global Systemically Important Banks (G-SIBs)*, FSB.ORG (Nov. 22, 2019), <https://www.fsb.org/wp-content/uploads/P221119-1.pdf>.

³⁵⁹ See Vice Chairman for Supervision Randal K. Quarles, *Thoughts on Prudent Innovation in the Payment System*, FEDERALRESERVE.GOV (Nov. 30, 2017), <https://www.federalreserve.gov/newsevents/speech/quarles20171130a.htm>.

Fiat-Collateralized Stablecoins

Avit is not a stablecoin. It is not comparable to any of the stablecoins discussed herein or elsewhere. We only address stablecoins in this paper because Avit could satisfy some of the demand for stablecoins, thereby bringing some of the activity back into the purview of the Federal Reserve System.

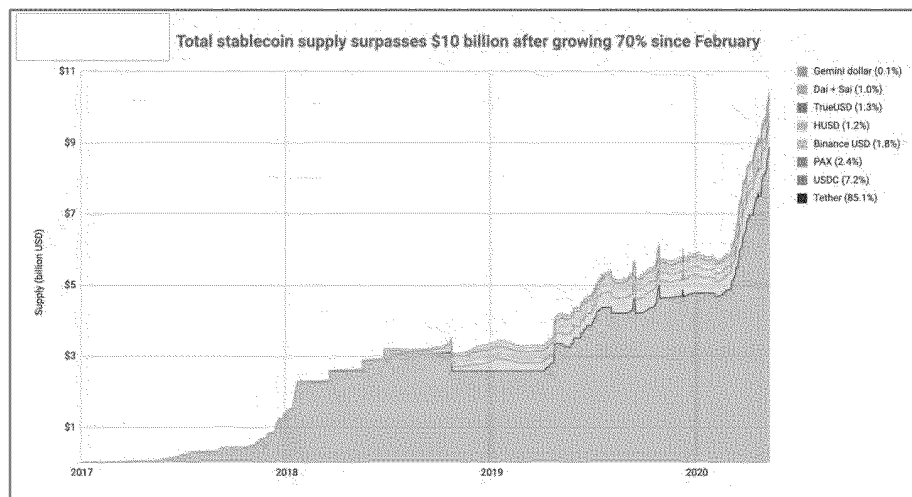
The annualized transaction volume of stablecoins is now approaching \$20 trillion, by one measure, as further detailed in “The Dollar Is Not Programmable” section and Table 54 on page 94.

As Governor Lael Brainard correctly pointed out in her December 2019 speech:

“Stablecoin networks at global scale are leading us to revisit questions over what form money can take, who or what can issue it, and how payments can be recorded and settled. While central bank money and commercial bank money are the foundations of the modern financial system, nonbank private “money” or assets also facilitate transactions among a network of users. In some cases, such nonbank private assets may have value only within the network, while in other cases, the issuer may promise convertibility to a sovereign currency, such that this becomes a liability of the issuing entity. Stablecoins aspire to achieve the functions of traditional money without relying on confidence in an issuer—such as a central bank—to stand behind the “money.” For some potential stablecoins, a close assessment suggests users may have no rights with respect to the underlying assets or any issuer.”³⁶⁰

Since early 2017, the combined value of the top eight stablecoins (by market capitalization) has gone from less than \$1 billion to a recent all-time high of \$10.4 billion³⁶¹—and this metric shows only the monetary base of stablecoins. The real story is in the velocity of stablecoins, which range from 45x to 55x for on-chain transactions (see Table 59, above) and as high as 1,988x for total on- and off-chain transactions, albeit the latter data point cannot be independently verified. The most widely used and adopted stablecoins are collateralized by fiat currencies. These include Tether (USDT), USD Coin (USDC), ~~REDACTED~~ Standard (PAX), Gemini Dollar (GUSD), TrueUSD (TUSD) and others.

Table 68: Total Stablecoin Supply Surpasses \$10 billion (5/12/20)^{362 363}



³⁶⁰ See Governor Lael Brainard, *Update on Digital Currencies, and the Challenges Ahead*, FEDERALRESERVE.GOV (Dec. 18, 2019), <https://www.federalreserve.gov/newsevents/speech/brainard20191218a.htm>.

³⁶¹ See Celia Wan, *Total Stablecoin Supply Surpasses \$10B, Growing More than 70% Since February*, THEBLOCKCRYPTO.COM (May 12, 2020), <https://www.theblockcrypto.com/linked/64947/total-stablecoin-supply-10-billion>.

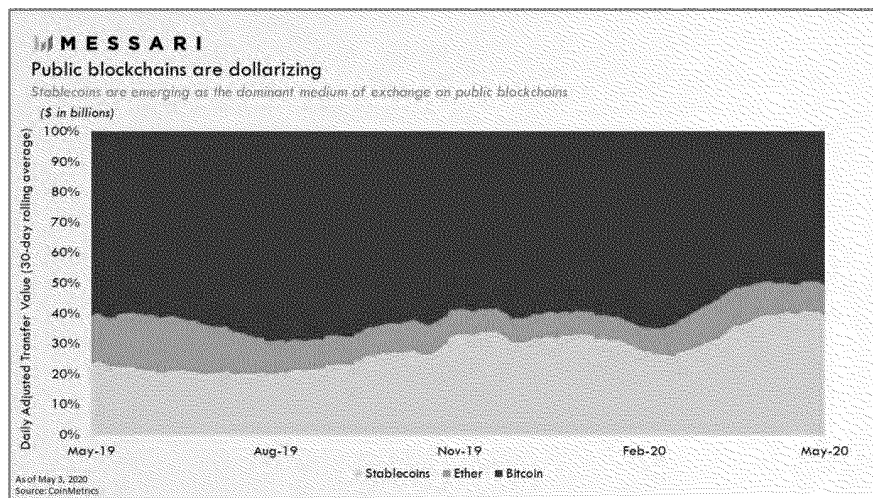
³⁶² Zack Voell, *Stablecoin Supply Breaks \$10B as Traders Demand Dollars Over Bitcoin*, COINDESK.COM (May 12, 2020), <https://www.coindesk.com/stablecoin-supply-breaks-10b-as-traders-demand-dollars-over-bitcoin>.

³⁶³ Celia Wan, *Total Stablecoin Supply Surpasses \$10B, Growing More Than 70% since February*, THEBLOCKCRYPTO.COM (May 12, 2020), <https://www.theblockcrypto.com/linked/64947/total-stablecoin-supply-10-billion>.

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As stablecoins have proliferated in transactional use, an interesting phenomenon has emerged: cryptoassets, such as bitcoin, are being “dollarized”—in other words, dollar-backed stablecoins are surpassing bitcoin and other cryptocurrencies in transaction volume.³⁶⁴

Table 69: Public Blockchains Are Dollarizing³⁶⁵



To date, however, the use of stablecoins has remained largely contained to use cases within the digital asset ecosystem. We believe that a primary reason for this is the significant uncertainty and risk that surrounds even the most regulated stablecoins on the market—none of which are issued by banks. Major problems include:

- Uncertainty regarding the legal enforceability of stablecoin transactions (indeed, USDC’s user agreement warns such transactions may not be legally enforceable at all);³⁶⁶
- Lack of regulation, or in the case of state-chartered trust companies there is regulation but it is significantly lighter-touch than that of banks;
- Issuers are not well-capitalized (and may not even be solvent);
- Issuers commingle the collateral backing the obligations with their other assets; and
- Unclear treatment in bankruptcy, which means the loss severity in the event of a bankruptcy would likely be very high.

Yet, despite all these major issues, transactional demand for stablecoins continues to grow.

For education purposes only, we provide additional information regarding the leading fiat-backed stablecoins in the next three tables.

³⁶⁴ See Nic Carter, *Policymakers Shouldn’t Fear Digital Money: So Far It’s Maintaining the Dollar’s Status*, COINDESK.COM (Feb. 19, 2020), <https://www.coindesk.com/policymakers-shouldnt-fear-digital-money-so-far-its-maintaining-the-dollars-status>.

³⁶⁵ Ryan Watkins, *The Stablecoin Wars*, MESSARI.IO (May 7, 2020), <https://messari.io/article/the-stablecoin-wars>.

³⁶⁶ See Circle USDC User Agreement, *Legal Treatment of USDC Transfers*, CIRCLE.COM (last visited Jun. 5, 2020), <https://support.usdc.circle.com/hc/en-us/articles/360001233386-Circle-USDC-User-Agreement>.

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Table 70: Comparison Fiat-Collateralized Stablecoins^{367 368 369 370 371 372 373}

	Issuer	Network	Reserves	Focus	Transfer
Tether	Non-Bank (MSB)	Open	Bank Deposits, Cash Equivalents, Loans	Store of Value, Short-Term	Open
USD Coin	Non-Bank (MSB, BitLicense)	Open	Bank Deposits	Institutional, Decentralized Finance Applications	Open*
[REDACTED] Standard	Non-Bank (NY Trust)	Open	Bank Deposits	Institutional, Digitized Assets	Open*
TrueUSD	Non-Bank (MSB)	Open	Bank Deposits (Escrow Accounts)	Retail	Open*
Gemini Dollar	Non-Bank (NY Trust)	Open	Bank Deposits	Institutional, Merchant	Open*
Libra	Non-Bank	Open	Government Bonds, Bank Deposits	Retail, The Unbanked	Members Only

*These projects are able to freeze funds if (i) suspicious activity is identified or (ii) law enforcement requests an intervention; however, usage of this design feature has been extremely rare.

Table 71: Legal and Compliance for Leading Fiat-Collateralized Stablecoins^{374 375 376 377 378}

	Exchange Relationship	Legal Entity	Legal Jurisdiction	Licenses	Banking Partners	Auditor
Tether (USDT)	BitFinex	Tether Holdings Limited	British Virgin Islands	MSB, Limited Company in Hong Kong	Multiple	Friedman LLP
USD Coin (USDC)	Circle, Coinbase	Circle Inc. (but not issued out of its broker dealer license)	Cayman Islands	MSB under FinCEN & BitLicense (NY)	Cathay Bank, Hwatai Bank, Deltech Bank, Others	Grant Thornton LLP
[REDACTED] Standard (PAX)	itBit	[REDACTED] Trust Company LLC	United States	New York Trust Charter	BMO Harris, [REDACTED] Bank, Signature Bank, Metropolitan Commercial Bank	Withum
TrueUSD (TUSD)	-	TrueCoin LLC	United States	MSB, Nevada Department of Business and Industry (DBI)	US Bank, Alliance Bank, Mercantile Bank, Others	Cohen & Company
Gemini Dollar (GUSD)	Gemini	Gemini Trust Company LLC	United States	New York Trust Charter	State Street	BPM

³⁶⁷ See tether, TETHER.IO, <https://tether.to/> (last visited Jun. 6, 2020).

³⁶⁸ See USD coin, CENTRE.IO, <https://www.centre.io/index.html> (last visited Jun. 6, 2020).

³⁶⁹ See [REDACTED] standard, [REDACTED] [REDACTED] (last visited Jun. 6, 2020).

³⁷⁰ See trueUSD, TRUSTOKEN.COM, <https://www.trusttoken.com/trueusd> (last visited Jun. 6, 2020).

³⁷¹ See gemini dollar, GEMINI.COM, <https://gemini.com/dollar> (last visited Jun. 6, 2020).

³⁷² See libra, LIBRA.ORG, <https://libra.org/> (last visited Jun. 6, 2020).

³⁷³ Information under “Focus” presented by Avanti Financial Group.

³⁷⁴ See tether, TETHER.IO, <https://tether.to/> (last visited Jun. 6, 2020).

³⁷⁵ See USD coin, CENTRE.IO, <https://www.centre.io/index.html> (last visited Jun. 6, 2020).

³⁷⁶ See [REDACTED] standard, [REDACTED] [REDACTED] (last visited Jun. 6, 2020).

³⁷⁷ See trueUSD, TRUSTOKEN.COM, <https://www.trusttoken.com/trueusd> (last visited Jun. 6, 2020).

³⁷⁸ See gemini dollar, GEMINI.COM, <https://gemini.com/dollar> (last visited Jun. 6, 2020).

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Table 72: Market, Performance, and Technology for Leading Fiat-Collateralized Stablecoins^{379 380}

Information as of 6/7/20	Market Capitalization	Volume (30d, Total)	Volume (30d, Daily Average)	Volume Rank (30d, Digital Asset Market)	Token Standard (Blockchain)
Tether (USDT)	\$9.22 billion	\$1.2 trillion	\$40.7 billion	1	Ethereum, Tron, Algorand, Omni Layer (Bitcoin), Liquid
USD Coin (USDC)	\$735.8 million	\$13.9 billion	\$464 million	16	Ethereum
Paxos Standard (PAX)	\$245.5 million	\$8 billion	\$267 million	22	Ethereum, Ontology
TrueUSD (TUSD)	\$137.3 million	\$5.8 billion	\$193 million	25	Ethereum
Gemini Dollar (GUSD)	\$10.3 million	\$794 million	\$26.5 million	66	Ethereum

Why the Wyoming Division of Banking and The Federal Reserve Should Support Avits

For policy reasons we believe there would be several policy reasons to approve Avit:

- Approval would define a regulatory-compliant path for U.S. dollar-based payment tokens to come within the Federal Reserve's direct line of oversight and possibly direct regulation—namely, by obtaining a Wyoming SPDI charter and possible Federal Reserve membership. If Avit is approved, policymakers could point to an already-approved regulatory structure when directing stablecoin issuers (including Facebook Libra) to become regulated.
- Approval of such a regulatory-compliant path would provide a better regulatory roadmap for these activities than exists today, which would bring activities into the banking system and help ring-fence the U.S. Treasury market from the potential adverse monetary policy impact of Facebook Libra and other large stablecoins that invest in U.S. Treasuries. HQLA silos from such activities could become large (and potentially huge, in the case of Facebook's Libra, which the European Central Bank recently estimated could grow to become one of the world's largest money-market funds).³⁸¹
- Approval would enable innovation in programmable funds to proceed prudently.
- Approval would create a gateway to FedNow rather than a potential competitor to it. Other digital assets, such as synthetic CBDCs and wholesale payment tokens such as JPM Coin, Wells Fargo Digital Cash and Fidelity's USC, could become competitors to FedNow.
- Approval would underscore that the legal and supervisory groundwork for digital assets must be properly laid before banks are allowed to gain access to the payment system (including a resolution plan for banks providing custody services for digital assets). It would also put appropriate capitalization behind digital asset intermediaries, which is not the case today. These critical building blocks are in place in Wyoming, but not yet in other states.
- Approval would enable users to take advantage of different programming environments for their funds transfer needs, but without the Federal Reserve itself directly integrating with any of these different programming environments. Banks that serve as gateways to the payment system are also firewalls that protect it from contagion should the innovation prove riskier than anticipated. By contrast, CBDC and synthetic CBDC proposals would require the Federal Reserve to integrate with a system architecture that differs markedly from that used in the payment system today.

³⁷⁹ See CoinMarketCap, *Monthly Volume Rankings*, COINMARKETCAP.COM, <https://coinmarketcap.com/currencies/volume/monthly/> (last visited Jun. 6, 2020).

³⁸⁰ See CoinMarketCap, *Market Capitalization Rankings*, COINMARKETCAP.COM, <https://coinmarketcap.com/> (last visited Jun. 6, 2020).

³⁸¹ See Mitsutoshi Adachi, Matteo Cominetta, Christoph Kaufmann, and Anton van der Kraaij, *A Regulatory and Financial Stability Perspective on Global Stablecoins*, ECB.EUROPA.EU (May 5, 2020), https://www.ecb.europa.eu/pub/financial-stability/macprudential-bulletin/html/ecb.mpbu202005_1~3e9ac10eb1.en.html#toc6.

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- Approval would support the U.S. dollar's position as a reserve currency, providing a new outlet for "dollarization" of digital asset markets generally. These markets are still small and have no impact on the dollar's reserve currency status at present, but it is now possible to envision scenarios in which they do become impactful (*e.g.*, Facebook Libra).
- Approval would entrust an experienced team of people to innovate prudently, including bank regulators at the Federal Reserve and Wyoming Division of Banking overseeing it, and Avanti's experienced board of directors overseeing its experienced executives and advisers. The Avanti team has the rare combination that positions it for serious consideration of this proposal: it is both highly experienced in managing traditional banks and regulated financial services businesses, and in managing secure digital asset businesses.

On a closing note, the purpose of enabling prudent innovation in banking is to enable innovation in the real economy, in a manner that does not pose risk to the stability of the financial system. Likely such innovation is best tested by the private sector. When email first became available to early adopters with the release of Lotus Notes in 1989,³⁸² no one could possibly fathom the later rise of e-commerce, social media and streaming services. Today's most successful internet companies—Amazon, Google, Netflix and Facebook—did not yet exist. They were not first-generation internet companies, but instead were companies that built on the innovations that came before them and enabled further innovation to develop in their wake.

Avanti, too, is proposing to build on the innovations that came before us, which we believe will enable further innovation to develop in our wake. We plan to do so in a prudent way, with a team capable of executing the proposal in a safe and sound manner. We also propose to do it in a regulated way that, when successful, creates a template for other initiatives to do the same.

³⁸² See Sarah Left, *Email Timeline*, THEGUARDIAN.COM (Mar. 13, 2002), <https://www.theguardian.com/technology/2002/mar/13/internetnews>.